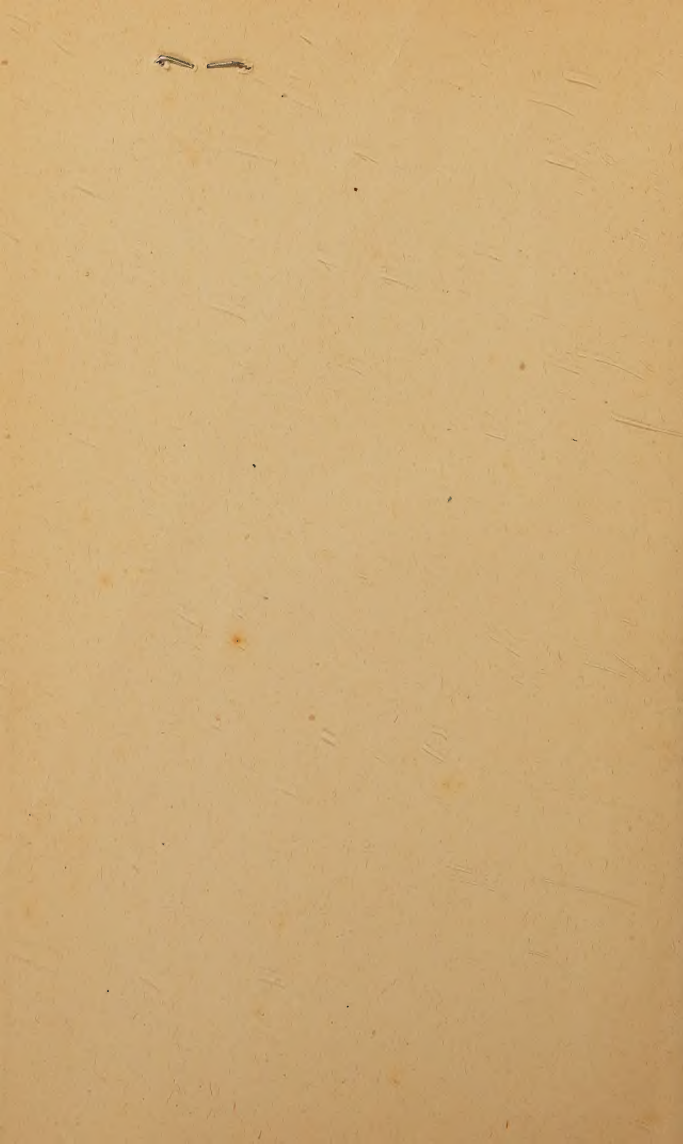


THE
BUSY MAN'S
FRIEND

10.
Wm L Tyrell



THE BUSY MAN'S FRIEND;

OR

GUIDE TO SUCCESS

BY FACTS AND FIGURES.

THINGS THAT EVERY ONE SHOULD KNOW.

A Compendium of Legal and Business Forms.

A Fund of Practical Information for Every-day Life. The Essence of Volumes Put into

A NUT SHELL,

BY

PROF. J. L. NICHOLS, A. M.,

AUTHOR OF

"The Business Guide," "Household Guide," "Search Lights,"

"Farmers' Manual," "Safe Citizenship," Etc., Etc.

AND

H. H. GOODRICH, A. M.,

Attorney at Law and Master in Chancery.

SOLD ONLY BY SUBSCRIPTION.

PUBLISHED BY

J. L. NICHOLS & CO.

Atlanta, Ga. Naperville, Ill. Toronto, Can.

1902

“Every person has two educations, one which he receives from others, and one more important which he gives to himself.”—GIBBON.

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***Don't wait until the iron's hot,
But make it hot by muscle;
Don't wait for wealth your father's got,
Take off your coat and hustle.***

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THE EARLY HOME OF ABRAHAM LINCOLN, WHO WAS KNOWN AS "HONEST ABE."

THE BUSY MAN'S CODE.

The Busy Man's Decalogue.

1. Be honest in thought, word and deed.
2. Remember time is gold, and squander neither your own nor that of others.
3. Be brave enough to say no if asked to do what your judgment disapproves.
4. Take the weather as it comes; growling at the sky is very poor and unprofitable business.
5. Economy lays the foundation of wealth; good judgment raises the superstructure.
6. Be careful of promises; good signs of rain don't make the corn grow.
7. Never ask or accept of others what you would not grant if you yourself were asked.
8. Preserve your health by living according to the laws of nature and common sense.
9. Let your actions be equal to your promises; don't take too big a bite when chopping at the sapling.
10. Be cheerful, kind, polite, and considerate of the rights of others, while mindful always that self-preservation is the first law of nature.



THOMAS JEFFERSON.

JEFFERSON'S RULES.

There are ten rules for practical life which are attributed to Thomas Jefferson, and which are so very sensible that they deserve a conspicuous place in *The Busy Man's Friend*. They are:

1. Never put off until to-morrow what you can do to-day.
2. Never trouble another for what you can do yourself.
3. Never spend your money before you have it.
4. Never buy what you do not want because it is cheap; it will be dear to you.
5. Pride costs us more than hunger, thirst and cold.
6. We never repent of having eaten too little.
7. Nothing is troublesome that we do willingly.
8. How much pain the evils that have never happened cost us.
9. Always take things by the smooth handle.
10. When angry, count ten before you speak; if very angry, a hundred.



Young Peabody Sawing Wood for a Night's Lodging. He became one of the First Millionaires and Philanthropists of America.

BUSY MAN'S RULES.

1. Better a busy man's health, than a rich man's idle wealth.
2. Handle your tools without mittens, a cat in gloves catches no mice.
3. Three moves are as bad as a fire. A rolling stone gathers no moss.
4. He that riseth late must trot all day, and shall scarce overtake his work at night.
5. Bad luck is the man who stands with his hands in his pockets, waiting to see how it will turn out.
6. Some men are unlucky; but too often the pipe and the bottle are their closest friends.
7. Character is the busy man's savings bank, wherein is locked the toils of his hands.
8. Economy is of priceless value. The loss of the top hoop means the loss of the barrel.
9. Never take a holiday when it requires two weeks to repair the damage done to the body, and three to the purse.
10. Rise by your own exertions. The building that needs props will be sure to fall.



IT NEVER PAYS TO MISREPRESENT THE THING YOU ARE SELLING.

BUSINESS MAXIMS.

1. Your first ambition should be the acquisition of knowledge, pertaining to your business.
2. Above all things acquire a good, correct epistolary style, for you are judged by the business world according to the character, expression, and style of your letters.
3. During business hours attend to nothing but business, but be prompt in responding to all communications, and never suffer a letter to remain without an answer.
4. Never fail to meet a business engagement, however irksome it may be at that moment.
5. Undertake no business without mature reflection, and confine your capital closely to the business you have established.
6. Lead a regular life, avoid display, and choose your associates discreetly, and prefer the society of men of your own type.
7. Avoid litigation as much as possible, study for yourself the theory of commercial law, and be your own lawyer.
8. Never run down a neighbor's property or goods and praise up your own. It is a mark of low breeding, and will gain you nothing.



It never costs anything to be polite, yet it is often worth a fortune.

BUSINESS MANNERS.

1. Be cheerful, and show proper civility to all with whom you transact business.

2. There are many who have failed in business because they never learned to respect the feelings or opinions of others.

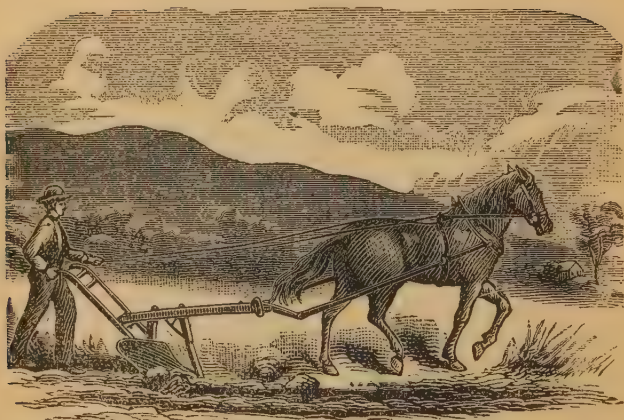
3. Kindness of manners is the best capital to invest in a business, and will bear a higher rate of interest than any other investment.

4. Be accomplished, polite, refined, civil, affable, well-behaved and well-mannered, and you will never lose by it.

5. Manners make the business man, and give him the art of entertaining and pleasing all with whom he has business relations.

6. If you wish to change a man's views in reference to some business transaction or other negotiations, respect his opinions, and he will be respectful and listen to your arguments.

7. There are a thousand easy, engaging little ways, which we may put on in dealing with others, without running any risk of over-doing it.



CORNELIUS VANDERBILT EARNING HIS FIRST ONE HUNDRED DOLLARS.

PRACTICAL RULES FOR SUCCESS.

"Economy is itself a great revenue."—Cicero.

"Be not simply good, be good for something."—Thoreau.

1. Keep your health good by adopting regular and steady habits.
2. Never be afraid to say no. Every successful man must have the backbone to assert his rights.
3. Remember that steady, earnest effort alone leads to wealth and high position.
4. Be not ashamed to work, for it is one of the conditions of our existence. There is not a criminal who does not owe his crime to some idle hour.
5. Never covet what is not your own.
6. Remember that time is gold.
7. To industry and economy add self-reliance. Do not take too much advice, think for yourself. Independence will add vigor and inspiration to your labors.
8. Don't be selfish. Selfishness is the meanest of vices, and the parent of a dozen more. Selfishness keeps a penny so close to the eye that it can't see a dollar beyond.
9. Never forget a favor, for ingratitude is the basest trait of a man's mean character.
10. Never taste or touch that which befogs the mind or dethrones the reason. A drunken man is always at the mercy of his enemies.



IT MAKES THE SPARKS FLY.

PEGGING AWAY.

What are the essentials to success? is a fair and obvious question. They may be reduced to one, rendered tersely by the expression "*pegging away*." Success is not achieved at once, and progress is at first likely to be slow. It is probably more difficult to increase \$5.00 to \$10.00 than to double \$1,000, but having once learned how to deal with small sums, we may repeat the operation on a larger scale. But *pegging away* means a great deal. It includes energy, industry, application, and self-reliance, and he who can bring these qualities to bear upon whatever he takes up, has already made considerable advances along the *true road to success*, for these are the basis of character, and indispensable to business prosperity. "It is better to be born lucky than rich," says the proverb; which means that observation shows that rich men often become poor, and this will generally be found to be due to the want of the qualities just mentioned.

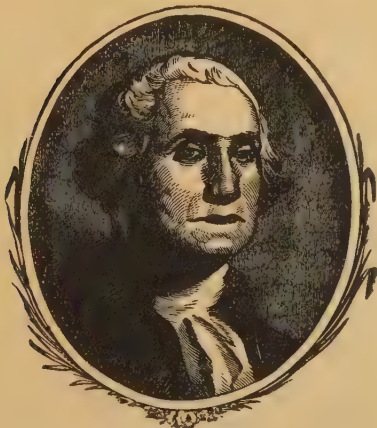


"Going to School."

THE HOWS OF BUSINESS.

How Success Is Won.

We are living in a busy age. Success is not won by honor or station, but crowns the brow of every one who, with adaptation and determination finds and holds the place that is congenial to his tastes and suitable to his ability. Many young men think that a college course will insure them success. He is the most truly educated man whose faculties are the most fully trained for the work he has to do. Education is a boon, but to expect success simply because a course of study has been completed always results in failure. Horace Greeley said, many years ago, that he knew of 3,000 college graduates in New York who were not able to make a living. Having a purpose and then sticking to it will overcome mountains of difficulties, and no talents, no circumstances, no opportunities will make a two-legged creature a man without it. The path of success in business is invariably the path of common sense. Given these qualities—**Economy, Integrity, Industry, Promptness, Self-reliance, and Moral Uprightness** and success is assured.



GEORGE WASHINGTON.

Washington studied and mastered without help the intricate forms of business. He copied bills of exchange, notes, drafts, bills of sale, receipts, and all the varieties of business forms with a precision and elegance that were remarkable. — Irving.

HOW TO WRITE, COLLECT, AND TRANSFER NOTES.

1. Notes are very common, and of great utility in business. At the present time a large proportion of all the business is transacted on credit, that is, a tradesman instead of paying for his stock when he buys it, promises to pay at some future time; that promise, whether oral or written, is itself property, and may be transferred from one to another. Hence notes which are a written and unconditional admission and evidence of a debt, facilitate the use of credit, which is and has been a great factor in the extension of commerce and trade.

2. A note is a simple written promise to pay a certain sum at a certain time, or on demand, or at sight to a person therein named.

The person who promises is called the *maker*, and the one to whom he promises is called the *payee*.

3. Notes are made payable to bearer or to order.
4. A note payable at a future time is not due until three days after the specified day of payment in some states.
5. Paper payable to bearer is transferred by delivery, payable to order by indorsement.
6. A note made by an intoxicated person, or minor, is void.
- *7. A note negotiable must contain five things: (1) that the date of payment be certain to come; (2) that it have one of the two words *order* or *bearer*; (3) that the amount be specified and certain; (4) that it be payable in money only; (5) that it be an unconditional promise.
8. A signature written with a lead pencil is valid.
9. If no time is specified, the note is payable on demand.
10. All the parties who have written their names on a note are liable for the amount due; but only one satisfaction can be recovered.
11. An indorser can avoid liability by writing "without recourse" on the back of the note with his signature.
12. A promissory note does not bear interest until after maturity, unless so specified.
13. In order to hold the endorser of a note it is necessary in Illinois and some other states to sue the note at maturity, secure judgment, have execution issued and returned "unsatisfied" or show maker to be insolvent or a nonresident. In others payment must be demanded on date of maturity and note protested by a notary public.
14. A note by one who cannot write should be witnessed.
15. A note destroyed by fire can be collected by proof.
16. Fraudulently making or altering a note is forgery.
17. A forged instrument is not commercial paper, and one whose name is forged cannot be made responsible.
18. A note obtained through fraud, in the hands of an innocent party who has acquired it in good faith, may be collected.
19. Notes are not transferable after they are due.
20. Always write the name of the place and State. It is just as important as the date.

* 7 and 33. This is the English common law. In Illinois and some other states the words "order or bearer" are not necessary to make a note negotiable.

21. Negotiable paper, payable to bearer, or indorsed in blank, which has been stolen or lost, cannot be collected by the thief or finder, but a holder who receives it in good faith before maturity for value, can hold it against the owner's claims.

22. Money paid under mistake must be refunded.

23. A note made in one State, payable in another, must be governed by the laws of that State in which it is to be paid.

24. Demand for payment of a note must be made upon the last day of grace; if that day is a Sabbath or a holiday, demand must be made on the day previous.

25. One who receives a note knowing it to have defects, gets no better right to collect it, than the one from whom he received it had.

26. If a person at the time of taking a note, has notice that it is void through fraud, or upon any legal grounds, he cannot collect it.

27. A note as a gift is void for want of a consideration.

28. Upon presentment for payment and refusal by the maker at maturity, in order to hold the endorser suit should be immediately instituted upon the note against the maker, and notice of default should be given to the endorser, and in some states the notice should be protested by a notary public.

29. An extension of the time of a note by holder, releases sureties and indorsers.

30. The signature on a note or bill need not be proven, unless it is first denied under oath.

31. When several persons unite in a note and say: "*we promise*," or "*we jointly promise*," it is a joint liability only, and all must be sued; but if they say *we* or *either of us promise*, or "*we jointly and severally promise*," the liability is both joint and several, and either or all may be sued.

32. When a note says "*I promise*," but is signed by two or more, each signer is bound for the whole amount, and each or all may be sued.

*33. If the words *order* or *bearer* are omitted, the note is not transferable.

34. A note given by one who is not of age cannot be collected by law. If the minor ratifies after becoming of age, it becomes valid.

35. The words "value received" are not required by law, and can be safely omitted. The law always presumes value was received until evidence is shown to the contrary.

36. Days of grace are not allowed in California, Arizona, Idaho, Oregon, Illinois, Connecticut, Montana, New Jersey, New York, North Dakota, Pennsylvania, Tennessee, Utah, Vermont, Wisconsin and Maryland.

SAFE PRINCIPLES TO PRACTICE.

1. **Buying Past Due Notes.**—Don't make a practice of buying past due notes, especially those not secured by mortgage. There are exceptions, however, where it is right and proper. But the shrewd business man seldom touches a past due note.

2. **Selling Notes without Recourse.**—If you sell a note drawn payable to your order, it will be necessary for you to write your name upon the back, in order that it may be legally transferred. With the name thus upon the back, you must consider yourself responsible for the payment of the note, in case the maker fails to pay. But if you sell the note with the distinct understanding that you are to be relieved of further responsibility, then you should write on the back, over your signature, these words: "Without recourse."

3. **Keeping Cancelled Notes.**—If parties are holding notes against you that are secured by mortgage, it would be well to cancel them, or mark them paid as soon as they are taken up, but not to destroy them. Keep every note until the last one has been paid and the mortgage discharged. This is quite important.

4. **Inquiring for Notes at Bank.**—When calling at a bank for your note, always mention the exact day on which it falls due; if the paper belongs to another party, and is held by the bank for collection, then mention also the name of the person to whom it was originally given; if you have received a written notice concerning the note, take this notice with you, for it will tell the whole story. Banks keep their own notes in one place, and those of their customers in another; they also keep each date by itself and can, therefore, find notes more readily, if owner's name and date of maturity are given.

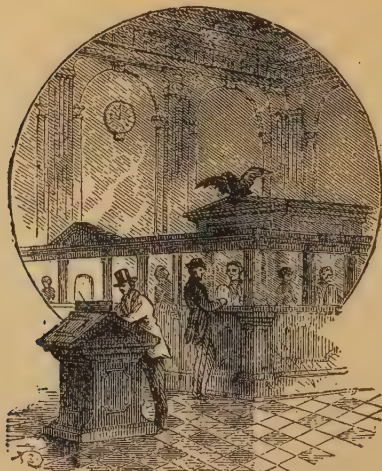
5. **Getting Consent of Surety.**—If you hold a note signed by two persons, one of whom is a surety, be very careful when the note becomes due not to consent to extension of time until the person who signed as surety gives his consent to such extension in writing. In the state of Illinois verbal consent on the part of the surety is sufficient, but in some states it is necessary, in order to bind the surety, that his consent be in writing to be absolutely safe; therefore, you should always secure the consent of the surety to an extension of time on a note in writing, or better still, make a new note and have it executed by all the parties.

6. **Caution as to Endorsements.**—When making a payment of interest or principal upon your note, see that it is properly endorsed yourself, and examine the note and see that it is your note. It is not unusual that an endorsement is made upon the wrong paper.

7. **Receipts for Payment of Interest or Principal on Notes.**—The practice of taking interest or part payment of principal without having them endorsed upon notes is a very poor one, although it often happens that it is necessary. Honest men sometimes receive money in that way but neglect to make endorsement, and should the note pass in the hands of an innocent person who knows nothing about these payments, he can insist upon the payment of the face of note and interest. All payments of principal and interest must appear as endorsements upon the back of the note.

8. **Payment of Notes at a Distance.**—In the payment of notes where parties live at a distance, request them to send it to the nearest bank for collection. Then you can go there and make payment and receive the note. This is the only safe and business-like way to pay a note where party holding it lives at a distance.





The Safe Way to Write All the Different Forms of Notes.

\$375.00.

Naperville, Ills., Oct. 7, 1896.

*One year after date I promise to pay to
J. L. Nichols. or order, Three Hundred and
Seventy-five Dollars, for value received, with
interest at six per cent.*

J. R. Price.

Payable at Bank.

\$440.00.

Naperville, Ills., Oct. 10, 1896.

*Two years after date, for value received, I promise to
pay N. A. Lundy, or order, Four Hundred and Forty Dollars
at Second National Bank. Interest at eight per cent. per
annum.*

P. D. Crimmins.

A Note by One who Cannot Write.**\$49.50.**

Cleveland, Ohio, Mar. 20, 1896.

One year after date, I promise to pay D. A. Pfitzinger, or order, Forty-nine $\frac{50}{100}$ Dollars, with interest at eight per cent. Value received.

his
John + Rourke,
mark.

Michael Curtis, Witness.

N. B.—A note made by a person who cannot write should always be witnessed by a disinterested person.

On Demand.**\$25.67.**

Toronto, Ont., Oct. 12, 1896.

On demand I promise to pay to the order of J. D. Jones, Twenty-five $\frac{67}{100}$ Dollars. Value received, with interest at six per cent.

J. P. Reynolds.

NOTE.—This note answers the same purpose as a note written one day after date.

My Own Order.**\$200.00.**

Ottawa, Ont., July 20, 1896.

For value received, I promise to pay, sixty days after date, to my own order, Two Hundred Dollars, with interest at eight per cent.

A. S. Barnard.

NOTE.—A note may be drawn to the maker's own order, with his indorsement in favor of the creditor. This note then can be transferred without indorsement.

Joint Note.**\$200.**

Lisle, Ills., Jan. 1, 1896.

One year from date, we promise to pay P. D. Crimmins, or order, Two Hundred Dollars. Value received. Interest at six per cent.

Edward Strohm.

Chas. Schwartz.

Principal and Surety Note.**\$600.**

Montreal, Sept. 21, 1896.

For value received, on or before July 27, 1893, I promise to pay to the order of Grover Cleveland, Six Hundred Dollars. Interest at nine per cent.

Peter Thompson, *Principal.*Jaspër Dille, *Surety.*

NOTE.—The general form of a Principal and Surety is for the principal to properly sign the note, and the surety to indorse it.

Collateral Note.

\$500.

Mendota, Texas, Sept. 25, 1896.

Sixty days after date I promise to pay to the order of Elmer Wicks, Five Hundred Dollars, without defalcation, for value received. Interest at eight per cent.

Having deposited United States' Bonds of the nominal value of Six Hundred Dollars, which I authorize the holder of this Note, upon the non-performance of this promise at maturity, to sell, either at the Brokers' Board or at public or private sale, without demanding payment of this Note or the debt due thereon, and without further notice, and apply proceeds, or as much thereof as may be necessary to the payment of this Note, and all necessary expenses and charges, holding myself responsible for any deficiency.

Philo Barber.

Accommodation Note.

\$500.00.

Meriden, Vt., March 13, 1896.

Sixty days after date I promise to pay to the order of Frank Bryant, Five Hundred Dollars, at the Earlville National Bank, without defalcation. Value received.

Henry Lundy.

Credit the drawer, }
Frank Bryant. }

NOTE.—An accommodation note is where a person gives his note to another person, who is by agreement permitted to take it to the bank and have it discounted. In the hands of the original holder it cannot be collected.

[A Note by a Married Woman.

\$200.00.

San Francisco, Cal., June 15, 1896.

Two years after date, I promise to pay Fred. Lueben, or order, Two Hundred Dollars, with interest at eight per cent., payable annually. Value received.

Mrs. Mary Chandler.

N. B.—A married woman could formerly incur no liability, but now the statutes of the various States give her more or less freedom to enter into contracts, and consequently her note can be enforced against her. But in most States she cannot be bound by a note given to her husband, nor can he give a note to her. If she lends money to him and takes his note, a court of equity will oblige the husband to pay her, but the court of law will not.

Joint and Several Note.

\$2,000.00.

Ottawa, Ont., Nov. 25, 1896.

Ten months after date, we, or either of us, promise to pay Maggie Patterson Two Thousand Dollars, value received. Interest at five per cent.

E. C. Wicks.

John Lindsley

Chattel Note.**\$700.**

Earlville, Ills., Aug. 17, 1896.

Thirty days from date, for value received, I promise to pay A. B. Cody, or order, Seven Hundred Dollars in Warrenville Flour, at the then market rate, the same to be delivered at the option of the owner within the limits of the town of Earlville.

B. B. Boecker.**Produce Note.****\$37.00.**

Memphis, Tenn., Nov. 20, 1896.

For value received, I promise to pay to Geo. Finkbinder, on demand, Thirty-seven Dollars, in goods at our store.

J. L. Strohm.**Ordinary Form used in the West.****\$200.00.**

Sacramento, Cal., June 15, 1896.

One year after date I promise to pay J. G. Snyder, or order, Two Hundred Dollars, in U. S. gold coin, with interest at one per cent. per month in like gold coin until paid.

W. F. Teel.*** Iron Clad Form.****\$300.00.**

Salt Lake City, Utah, May 19, 1896.

Two years after date, for value received, we promise to pay to the order of L. B. Lawson, Three Hundred Dollars, negotiable and payable at the Commercial National Bank of Salt Lake City, Utah, without defalcation or discount, with eight per cent. interest per annum from date until paid, both before and after judgment, payable in U. S. gold coin; and if suit be instituted for the collection of this note we agree to pay Twenty Dollars attorney's fee. If the interest be not paid as herein stipulated, the legal holder of this note may declare the principal due, and proceed by law to recover both principal and interest.

T. C. Hallett.**J. T. Hallett.****A Corporation Note.****\$200.00.**

Augusta, Me., Mar. 18, 1896.

Nine months after date, the Granite Stone Company promises to pay J. D. Huling, or order, Two Hundred Dollars, with interest at seven per cent. Value received.

Granite Stone Company.**Attest: I. K. Devitt, Secretary, T. P. Phillips, President.**

N. B.—If corporation notes are drawn and signed in the above manner the officers are not personally liable.

* This form is used by bankers and brokers in the Rocky Mountain and Pacific States; it is really a form of *Judgment Note*.

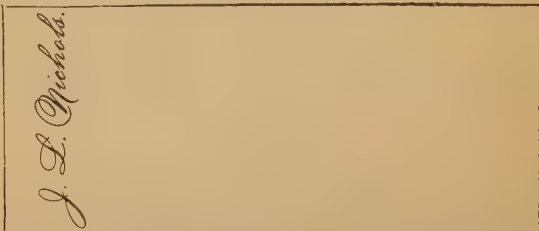


How the Different Notes and Bills are Indorsed.

1.—Blank Indorsement.

A blank indorsement is writing the name of the holder on the back of the note. This, however, is not the best form of indorsement, and should rarely be used. Form 1 (page 22) is indorsed in blank as follows:

FORM A.



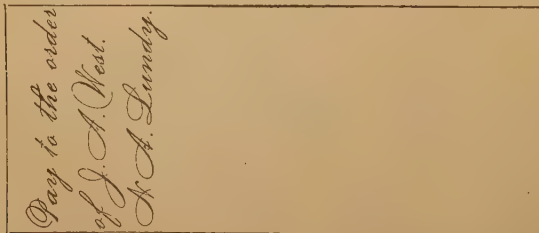
N. B.—This note is now transferable without further indorsement.

2.—Full Indorsement.

When the holder writes upon the back of the note, or bill, the name of the person to whom it is to be paid, and makes it payable to his order, and signs his name below, it is called a FULL INDORSEMENT.

Form 2 (page 22) is indorsed in full, and made payable to the order of J. A. West.

FORM B.



N. B.—This note cannot be sold or transferred without Mr. West's indorsement.

3.—Qualified Indorsement, or How to Avoid Liability.

This is generally done by inserting the words "WITHOUT RECOURSE" in the indorsement. It relieves the indorser from all liability to pay, while at the same time it transfers the title perfectly to the one to whom it is sold.

FORM C.

Pay B. G.
McCarton, or
order, without
recourse.
J. D. Jones.

4.—Restrictive Indorsement.

A restrictive indorsement is intended to confine the payment to some particular person or purpose. Form 2 (page 22) is restrictively indorsed as follows:

FORM D.

Pay to J. A.
West only.
M. A. Lundy.

N. B.—This note cannot be transferred. The mere omission of the words "order" or "bearer" in an indorsement on the back of a note or draft does not have the same effect as the omissions of the same words in the face of the note or draft. If omitted on the face, it restricts negotiability.

5.—Conditional Indorsement.

Neither the original character of the note nor its negotiability is affected by a conditional indorsement. It only affects the title of the one to whom it is transferred.

FORM E.

Pay J. A. West,
or order, unless
I give you no-
tice not to pay
before maturity.
J. C. Humes.

FORMS OF INDORSEMENTS.

1. Indorsement in Blank.

John S. Barton.

2. Indorsement in Full.

*Pay to Jas. Jones, or order.
John S. Barton.*

3. Qualified Indorsement.

Without recourse.

John S. Barton.

4. Restrictive Indorsements.

*Pay Robert Hunter, for my
use.*

John S. Barton.

*Pay to Chas. Harrison only.
John S. Barton.*

5. Conditional Indorsement.

*Pay George Gray, or order,
the within, unless before due
he receives the amount from
my agent.*

John S. Barton.

6. Indorsement by an Agent.

*Howard Chester,
By John S. Barton his agent.*

7. A Guaranty on a Note.

*For value received in cash,
I hereby guarantee the pay-
ment of the within note.*

John S. Barton.

1. The word *indorsement* signifies a writing on the back of a bill or written instrument.

2. The indorsement may be on any part of the note, or on a paper annexed to it, in ink or in pencil.

3. When note or bill is drawn payable to a person or his order, it is transferable only by his indorsement. Nothing else in law will hold the parties to a note directly liable to the holder.

4. When money is received on a bill or note, the amount and date of receiving should be plainly written on the back of the paper.

THE FORM OF A MONEY INDORSEMENT.

Received on within note

Oct. 4, 1891,

Thirty Dollars (\$30.00).

Nov. 1, 1891,

Fifty Dollars (\$50.00).



(JOINT NOTE NEGOTIABLE.)

Montreal.

July 1, 1896.

Three months after date we promise to pay

\$2000000 _____ or order.

at Canadian Bank of Commerce, here.

One Hundred _____ X Dollars.

for value received.

J. David
J. David

JOINT NOTE THAT CAN BE TRANSFERRED.

RECEIPT FOR A LOST NOTE.

30

\$300.00

For Lake, Wis., May 15, 1896.

Received of James W. Blackfoot, ———

Three Hundred Dollars, in full payment for a certain note
given by said James W. Blackfoot, dated May 12, 1893,
valuing for Three Hundred Dollars; which said note is lost,
destroyed, or mislaid, and this receipt is a guarantee against future
demands on account of said note.

J. M. Trueheart.

N. B.—Better never lose a note.

HOW TO WRITE ALL KINDS OF RECEIPTS.

A RECEIPT is an acknowledgment in writing that a certain sum of money or thing has been received by the party giving and signing the same.

A complete receipt requires the following statements : That a payment has been received; the date of the payment; the amount or article received; from whom received, and if for another, on whose behalf payment is made; to what debt or purpose it is to be applied; by whom received, and if for another, on whose behalf it was received.

2. If the giving and receiving of receipts was more strictly held to in the transactions of the various kinds of business, less trouble, fewer law-suits, and the saving of thousands of dollars would be the result.

3. If payment is made *upon account, upon a special debt, or in full*, it should be so stated in the receipt.

4. When an agent signs a receipt, he should sign his principal's name and then write his name underneath as agent.

5. It is not necessary to take a receipt on paying a note, draft, or other instrument indorsed by the payee, because the instrument itself becomes a receipt.

6. If a receipt is obtained through fraud, or given under error or mistake, it is void.



Receipt for the Purchase of a horse.

\$200.00.

Omaha, Neb., March 20, 1896.

Received of J. Lerch, Two Hundred Dollars, for a black mare, warranted only six years, sound, free from vice, and quiet to ride and drive.

Charles M. Smith.

(FOR INTEREST DUE ON MORTGAGE.)

\$75.^x/₁₀₀

CHICAGO, August 1, 1896

Received of D. A. Catron, Seventy-five Dollars, in full of one year's interest, due this day, on said mortgage to me, dated August 1st, 1881, for Six Hundred Dollars.

Chas. Shook.

A RECEIPT FOR INTEREST DUE ON A MORTGAGE.



ALL THE DIFFERENT FORMS OF RECEIPTS.

Receipt for Payment on Account.

\$250.00. Naperville, Ills., July 4, 1896.

Received of J. L. Nichols, Two Hundred and Fifty Dollars on account.

J. K. Rohmer.

2.

Receipt for Settlement of an Account.

Joliet, Ills., March 20, 1896.

Received from Thomas Rourke, Two Hundred and Twenty $\frac{14}{100}$ Dollars, in settlement of account to date.

C. S. Selby.

3.

Receipt in Full of all Demands.

Meriden, Conn., Jan. 14, 1891.

Received of E. R. Wicks, One Thousand Dollars, in full of all demands to date.

J. F. Hielscher.

4.

Receipt for a Particular Bill.

Brooklyn, N. Y., Aug. 1, 1896.

Received of Morris Cliggitt, Four Hundred Dollars, in Payment for a bill of Merchandise.

B. G. Barrett.

5.

Receipt for Rent.

Snyder, Tex., Mar. 20, 1896.

Received of L. Heininger, Forty Dollars, in full for one month's rent, to April 20th, for residence at 44 Olive Street.

J. G. Litt.

6.

Receipt for a Note.

Rec'd, Buffalo, March 6, 1896. from Messrs. Taylor & Co., their note of this date, at three months, our favor, for Twelve Hundred and Twenty Dollars; which, when paid, will be in full of account rendered to 1st instant.

\$1220.00.

William Barber.

7.

Receipt for Service.

Lemont, Ill., July 23, 1896.

Received from Samuel Lynn, Forty-Four Dollars, in full for service to date.

\$44.00.

Daniel Furbush.

8. Indorsement of a Partial Payment of a Note.

Rec'd, March 4, 1885, on account of within note, Three Hundred Dollars (\$300.00).

9. Receipt for Borrowed Money.

\$35.00. Naperville, Ills., July 20, 1896.

Borrowed and received from D. B. Givler, Thirty-Five Dollars, which I promise to pay on demand, with interest.

Henry Raymer.

10. Receipt for Property.

Rochester, N. Y., April 14, 1896.

Received of Louis Heininger, the following enumerated articles, to be held in trust for him, and returned on his demand: One Gold Watch, two Promissory Notes, each dated March 4, 1896, and signed by Henry Taylor,—one for Three Hundred Dollars, and one for Seven Hundred, each due one year from date.

William Place.

11. Receipt for Payment by the hand of a Third Party.

\$450.00. Joliet, Ky., June 4, 1896.

Received from Carl Cook by the hand of Frank Furbush Four Hundred and Fifty Dollars, in full for proceeds of sale of stock, sold May 28, 1896.

John Rourke.

HOW TO WRITE ALL KINDS OF ORDERS.

\$54.00. Baltimore, Oct. 14, 1896.

Messrs. M. Brown & Co. will please pay to the bearer Fifty-four Dollars in goods, and charge the same to my account

J. B. McCoulton.

2.

In Full of Account.

\$25.00.

St. Louis, April 13, 1896.

C. A. Mather, Esq.:

Please pay John Rickert, or
bearer, Twenty-Five Dollars in goods, and this shall be your
receipt in full of my account.

P. D. Crimmins.

For Goods.

New Orleans, March 4, 1896.

Mr. W. W. Walsworth;

Please send me per bearer ten barrels of Genesee
Flour, and oblige,

Yours truly,

Minnie Howard.

Orders are negotiable, but the person on whom they are drawn is not
under obligation to pay them, unless they have been accepted, for an order
partakes of the nature of a draft.

HOW TO WRITE ALL KINDS OF DUE-BILLS.

\$125.00.

Chicago, Aug. 14, 1896.

Due Henry Harrington, for value
received, One Hundred and Twenty-five
Dollars, with interest.

O. Zinger.

On Demand.

\$250.00.

Naperville, Ill., July 1, 1896.

Due J. O. Everett, on demand, Two Hundred Fifty Dol-
lars in goods from my store, for value received.

A. T. Hanson.

In Merchandise.

\$1000.00.

Lincoln, Neb., Nov. 1896.

Due R. Williams, or order, One Thousand Dollars, pay-
able in wheat at market price, on the first day of January
next.

Charles Lamb.

A Due-Bill is not generally payable to order, nor is it assignable by mere
indorsement. It is simply the acknowledgment of a debt; yet it may be
transferred.

Due-bills do not draw interest, unless so specified.

HOW TO WRITE, PRESENT, AND INDORSE A CHECK.

1. A check is a simple order on a bank for the immediate payment of a certain sum of money.
2. A bank can stamp a check good, or certify it, and thus become responsible to the holder for the amount.
3. In sending a check away from your own town or locality it should always be certified, as in the above.
4. A check is not due until presented. It is negotiable. It has no days of grace.
5. Giving a check is no payment of an indebtedness, unless the check is paid.
6. The death of the maker of the check before presentment to the bank, renders the check null and void.
7. A forged check paid by the bank is the bank's loss, and not the depositor's.
8. Payment of a check may be stopped by subsequent order to bank by maker before presentment of check.
9. The amount of the check should always be written out in words.
10. Every holder of a check is liable to a subsequent holder only for the time for which he would be held, if originally liable.
11. It is the safest rule always to act with diligence in presenting checks for payment.
12. Certificates of Deposit are used when money is deposited for a short time, and no regular bank account is kept. They can be used the same as a certified check.
13. In presenting a check to the bank for payment, always write your name on the back before presenting it.
14. If you have money in a bank and you wish to draw out a certain sum, write "Pay to myself," instead of writing your name in the body of the check, and then sign it.
15. A safe bank ought to be patronized, for it is dangerous to keep in possession or carry large sums of money.

All the Different Forms of Checks.

	STAMP.	No. 245.	Chicago, April 6, 1896.
	Naperville National Bank,		
	Pay to.....Hugh Graham, or Order,		
	 One Thousand Dollars.		
		\$1000.	J. A. West.

Good when properly indorsed.
H. Wells, Teller.

1. PAYABLE TO YOURSELF

\$100.00. Lexington, Mo., Mar. 20, 1896.
 Lexington National Bank, Pay to myself One Hundred Dollars.
 W. D. Atkinson.

2. PAYABLE TO BEARER.

\$150.00. Naperville, Ills., Jan. 1, 1896.
 First National Bank, Pay to J. L. Nichols, or bearer,
 One Hundred Fifty Dollars.
 Willard Scott & Co.

3. PAYABLE TO ORDER.

\$246.45. Earlville, Me., June 6, 1896.
 Earl Exchange Bank, Pay to F. B. Smith, or order,
 Two Hundred Forty $45/100$ Dollars.
 O. M. Powers.

4. CERTIFICATE OF DEPOSIT.

\$225.00. Philadelphia, Nov. 12, 1896.
 Keystone National Bank.
 Thomas Hendricks has deposited in this Bank Two Hundred Twenty-Five Dollars, payable to the order of John A. Logan, on the return of this certificate properly indorsed.
 C. E. Cramer, Cashier.

HOW TO FILL OUT A CHECK.

\$ _____ Webster City, Iowa, _____ 18 _____

First National Bank

Pay to _____ or Order, _____ Dollars,

No. _____

1. On the first blank line at the top write the number of dollars in figures, and then the date in the blank line following the name of the town and State.
2. After the words "Pay to" write the name of the party in whose favor the check is drawn, and on the next line below write out the amount to be paid in full.
3. On the last line at the left, write the number of the check (if you desire to number it) and then sign your name on the last blank line at the right.

HOW TO ENDORSE A CHECK AT THE BANK.

1. The Check is the most common commercial paper in use, and it is astonishing to see how many intelligent and educated people lack the necessary information on this subject.

2. Write *across* the back (not lengthwise) near the left end.

3. Simply writing your name on the back is a blank endorsement, and signifies that it has passed through your hands, and is payable to bearer.

4. If you wish to make the check payable to some particular person, write: Pay to the order of (*Person's name*), and then sign your name below.

5. Always endorse a check just as it appears on the face. If a check is payable to F. Block, it cannot be endorsed Frank Block. If the spelling of the name on the face of the check is wrong, endorse first as the name appears on the face, and below this first endorsement write your name correctly.

6. If the name on the face of the check is written Rev. F.W. Heidner, it must be so written in the endorsement.

7. If you wish to deposit a check, write: "For Deposit," and below this your name.

Form of an Endorsement When Transferred.

Pay to the order of M. Rathisher per. D. S. Burkey.

When Presented for Payment.

F. Smith.

No. 1. *Naperville, Ill., Feb. 2, 1896.*

National Exchange Bank,

Pay to..... *Wm. F. Barker,*.....or Bearer,

Three Hundred.....⁰⁰/₁₀₀ *Dollars.*

\$300.

F. A. Mauer.

STAMP.

300

No. 1.

Feb. 2d, 1896.

Wm. F. Barker,

for Merchandise.

\$300.

\$240.⁴⁰

Naperville, Ill., Feb. 3, 1896.

One year.....after date...*I*..promise to pay to

the order of.....*C. C. Mumm,*.....⁴⁰/₁₀₀ *Dollars,*

Two Hundred Forty.....⁴⁰/₁₀₀ *Dollars,*

at six per cent. interest. *Value received.*

No. 1. Due.....*H. A. Tholuen.*

\$240⁴⁰

To C. C. Mumm.

For Merchandise.

Date March 3, 1896.

Time One year.

Due March 6, 1897.

No. 1.

HINTS AND HELPS FOR WRITING, ACCEPTING, AND TRANSFERRING ALL KINDS OF DRAFTS.

1. A draft is a written order by one person on another for the payment of a specified sum of money.

2. The one who writes the draft is called the "*drawer*," the one on whom it is written the "*drawee*," and the one to whom it is to be paid the "*payee*."

3. Drafts may be made payable at sight, on demand, or at a certain time after date, or after sight.

4. The person drawn upon is under no obligation to the holder of the draft unless he accepts it.

5. The usual method of writing an acceptance is, to write across the face of the draft, with red ink, the word "*Accepted*," following with date and signature.

6. When acceptance or payment is refused the draft is protested.

7. A protest is a formal declaration made by a notary public, under his hand and seal, at the request of the holder, for non-acceptance or non-payment, and the parties liable are formally notified.

8. Drafts are negotiable both before and after acceptance.

9. Drafts drawn at sight or on demand are not presented for acceptance, but for payment only.

10. Drafts may be drawn to one's own order, and then indorsed in favor of the party to whom they are to be sent.

11. In buying a draft at the bank, it is always best to have it made payable to yourself, and then indorse it in favor of the party to whom you intend to transfer it. This gives you a good receipt for the money.

12. A promise to accept a draft will be equivalent to an acceptance if it has given credit to the bill.

13. Drafts on foreign countries are usually drawn in sets of three, each one referring to the other two, in order to prevent loss in transmission. They are sent by different routes, and the payment of one of them cancels the three.

14. Should the person upon whom the draft is drawn die before it was accepted, it should be presented for acceptance to his legal representatives.

FORMS OF DRAFTS.

Accepted Draft.

	\$250 $\frac{75}{100}$ <i>Anara, Ills., Dec. 8th, 1896.</i> <i>At Ten days' sight, i pay to the Order....</i> <i>of Thomas W. Jones, Two Hundred and</i> <i>Fifty..... $\frac{75}{100}$ Dollars,</i> <i>Value rec'd, which place to Account of</i> <i>To R. R. Robinson & Co.,</i> <i>Wilmington, Del.</i> <i>J. R. Williams.</i>	Accepted Dec. 12, 1896. R. R. Robinson & Co.
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1. Sight Draft.

\$500.

Naperville, Tenn., July 10, 1896.

At sight pay to the order of Frank Keeler, Five Hundred Dollars, and charge to the account of

To D. Bowers,
Meriden, Ills.

E. Miller.

2. Time Draft.

\$100.

Troy Grove, Ills., Aug. 1, 1896.

At ten days' sight pay to the order of Bernie Rogers at the Mendota First National Bank, One Hundred Dollars.

Value received.

Clark Dowling.

To Chas. Strong,
Mendota, Ills.

3. Time Draft, Second Form.

\$450.30.

Ottawa, Fla., July 5, 1896.

Ten days from date pay to J. L. Nichols, or order, Four Hundred Fifty $\frac{30}{100}$ Dollars. Value received.

To Fred. J. Davis,
Ottawa, Fla.

William Curtis.

4. Drafts to My Own Order.

\$500.

Wheaton, Ala., May 1, 1896.

Ten days after sight, pay to my own order Five Hundred Dollars, and charge to

To Reed Avery,
Earlville, Ills.

Rufus Parks.

Exchange for £100. New York, May 1, 1896.

Sixty days after sight of this First of Exchange,

(Second and Third of the same tenor and date unpaid),

Pay to the order of A. S. Sargent & Son

One Hundred Pounds Sterling

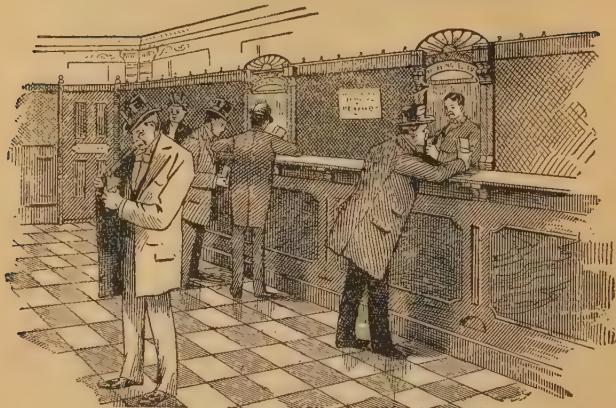
Value received, and charge the same to account of

To Messrs. Morgan & Co.

No. 74 London W. A. Sargent

A FOREIGN DRAFT, OR BILL OF EXCHANGE.





DOING BUSINESS WITH A BANK.

HOW TO DO BUSINESS WITH A BANK.

1. National Banks are required by the United States to deposit interest bearing bonds with the Treasurer at Washington in proportion to the capital stock paid in.

2. Banks of "circulation and deposit" have the use under certain restrictions of capital paid in by the stockholders, the money belonging to the depositors, and the notes of their own circulation.

3. Make your deposits in the bank as early in the day as possible, and never without your bank-book.

4 Always use the deposit tickets furnished by the bank. When checks are deposited, the banks require them to be indorsed, whether drawn to his order or not.

5. Keep your check-book under a lock and key.

6. Draw as few checks as possible; when several bills are to be paid, draw the money in one check.

7. Do not allow your bank-book to run too long without balancing. Compare it with the account of the bank.

8. In filling up checks, do not leave space in which the amount may be raised.

9. Write your signature with the usual freedom, and never vary the style of it.

10. Every check is paid by the bank at its own risk. If forged the bank must lose the amount.

11. If a raised check is paid by the bank, it can only charge the depositor the amount for which he drew.

12. Always keep the stub of your check-book, and in issuing a check always fill the stub out first.

HOW TO TRANSFER ALL KINDS OF PAPER.

1. **A Legal Transfer.**—A legal transfer of commercial paper is usually made before it matures, and the law protects the innocent holder of it in his possession. Even if he buys it from the thief who stole it, or from the party who found it or got it by fraud, it belongs to him, if he knew nothing of the illegal transactions and acted without knowledge of the theft or fraud.

2. **Usual Form.**—Paper is usually transferred by indorsement (the seller placing his name on the back of the note or bill.) Thus the indorser agrees to pay the amount if the maker does not, and he is therefore responsible, if properly notified when the paper is due and is not paid.

3. **Blank Indorsement.**—A blank indorsement most commonly used in business is simply writing the name on the back of the note or bill, and after the first indorsement it may be transferred by delivery the same as a government bond or bank bill.

4. **Peculiar Sacredness of Commercial Paper.**—The law protects the holder of negotiable paper in his possession of it, when it would not protect him in the possession of any other kind of property, for there is a peculiar sacredness attached to paper. Thus: If A had stolen a horse from B and sold it to C, the law would not protect C, but would allow B to take the horse. Whereas in case of a note, the law would protect C in his ownership of the note and he could hold the maker for the amount, if C was innocent and knew nothing of the way in which A got possession of the note.

5. **The Purchaser.**—If the purchaser is aware that there are any defects about a note or bill, or if there is anything suspicious, he buys it at his own risk.

6. **Transferring Found or Stolen Paper.**—Should A lose his note for \$300 and B find it, the latter could not compel A to pay it, unless he could prove that he came fairly into possession of it. No thief could collect a note himself which he had stolen if the fact of his theft could be proved, but if the note had a blank indorsement on the back of it, he could transfer or sell the note to an innocent party who could collect the note if he can show he made the purchase in good faith.

7. **Void Paper.**—Paper void where made is everywhere void. Even in case of void paper, a party who indorses it over to an innocent holder would be bound by his indorse-

ment, because he made a new contract to pay it when he endorsed it.

8. **Indorsement of a Note before It Is Made.**—When a party indorses a note before it is made, and it is afterwards made for a larger amount than was agreed, he cannot escape his liability to an innocent holder by pleading that fact. The rule is the same when a party accepts a blank draft.

9. **Avoiding Liability.**—An indorser can avoid liability by writing the words “without recourse,” or, “without recourse to me.” He can also specify what use is to be made of the funds when the paper is made, as for instance: “Pay Irving Taylor, or order, for credit of my account.”

10. **After Maturity.**—Paper can be transferred after maturity and usually no difficulty will arise over it, but the maker of the note may make any defense against the assignee possible had the note not been transferred.

11. **An Innocent Holder.**—An innocent holder of paper, having paid value for it before maturity, can hold both the maker and indorser responsible for payment.

12. **General Rule.**—In the transfer of commercial paper the indorser is held equally responsible for payment with the maker, and it is a safe rule to require the indorsement of the party who holds the paper before accepting it. An indorser who has paid a note can afterwards sell it. In the case of accommodation paper, however, when the payee has once paid it the paper is cancelled, and cannot again be transferred so as to give the holder a right of action against anyone, except the party who paid and then transferred it.

DEMAND OF PAYMENT.

1. **Time and Place.**—Demand should always be made at the proper time and place. If the name of a bank or any other place is mentioned in the paper, it should be made there.

2. **Insolvency.**—If the debtor is bankrupt, it is no reason why a demand should not be made on him.

3. **In Person.**—Demand must be made in person, and it cannot legally be made by mail.

4. **Possession of Paper.**—The party making the demand must have possession of the paper for the debtor can insist on having it delivered to him when paid.

5. **Lost Paper.**—In case the paper is lost, a bond of Indemnity must be made and tendered to the debtor, as protection in case it is ever found.

6. **Refused Payment.**—If demand is legally made, and it is refused, the paper must be protested, and the proper parties notified. This is usually the work of a Notary Public.

HOW TO MAKE CHANGE QUICKLY.



1. Consider the amount of the purchase as money already counted out. For example: If the purchase amounts to 46 cents, and you are handed a \$2 bill in payment, count out 4 cents to make it 50 cents, then count out the other \$1.50.

2. Should the purchase amount to \$2.54, and you are handed \$10, count out 46 cents to make it \$3, then count out even dollars to make the \$10, and your change is correct.

3. Always count your change after receiving, and see that it is correct.

HOW TO OBTAIN WEALTH.

The way to make money is to save it. Always remember and practice the maxim, "A dollar saved, a dollar earned."

A small sum of money saved daily for fifty years will grow at the following rate:

DAILY SAVINGS.

One Cent.....	\$ 950	Fifty Cents.....	\$47,520
Ten Cents.....	9,504	Sixty Cents.....	57,024
Twenty Cents.....	19,006	Seventy Cents.....	66,528
Thirty Cents.....	28,515	Eighty Cents.....	76,032
Forty Cents.....	38,015	Ninety Cents.....	85,537
One Dollar.....			\$475,208.



HOW TO SEND MONEY BY MAIL.

BANK DRAFTS. A draft on some reliable bank is by far the best and most business-like way to send large amounts of money. It is safe, convenient, and cheap.

Better, however, have the draft issued in your favor (to your own order), and then indorse it, and make it payable to the party to whom you intend to send it. (See indorsement on pages 128-130 and 148.)

POST OFFICE ORDER. By Post Office Order is also a safe and reliable way to send money. It costs a little more than to remit by draft, but it is equally as secure, and many times more convenient, because the Post Office is accessible at all hours of the day.

REGISTERED LETTERS. The Government promises special care in handling and transmitting a Registered Letter or Package, but should it be lost, the owner is the loser, and not the Government. Money sent by *Registered Letter is always at the risk of the sender.*

EXPRESS ORDERS. The Express Order, as to security, has all the advantages of the Bank Draft or Post Office Order. Serious disadvantages often arise, however, when the Express office on which the order is drawn has not the money on hand to pay it, consequently the holder of the order has to wait the slow action of the company's agents in getting the amount forwarded from some other office.

PERSONAL CHECKS. Never send money by your personal check, unless you are rated in commercial agencies. It may cause much delay to have it certified. There is also generally expense connected with the cashing of the check. This may be charged to your account. To avoid these annoyances pay only your local bills with personal checks.



How to Settle Difficulties by Arbitration.

Arbitration is an agreement by parties who have a controversy or difference to the decision of a third party.

Arbitration is one of the highest courts for the settlement of personal differences, and if people would only learn more of its benefits and advantages, lawyers by the thousands would not thrive and fatten upon the earnings of those who could make better use of their money.

When the matters in difference are simply those of fact, it is often more satisfactory to submit them to the decision of mutual friends, each contending party choosing one, and the two arbitrators thus chosen choosing the third, and the three parties thus chosen constituting the court.

The decision of the arbitrators is called an *award*.

The award should be specific and distinct containing the decision of the arbitrators in as clear and concise language as possible.

The following oath should be taken by the persons chosen to act as arbitrators or referees before entering upon the examination of the matters in dispute: We, the undersigned arbitrators, appointed by and between Henry Smith and Richard Brown, do swear fairly and faithfully to hear and examine the matters in controversy between said Henry Smith and

Richard Brown, and to make a just award, according to the best of our understanding.

P. D. Crimmins,

J. O. Everett,

O. M. Powers.

Sworn to this 26th day of May, A. D. 1885, before me.

D. B. Giveler,

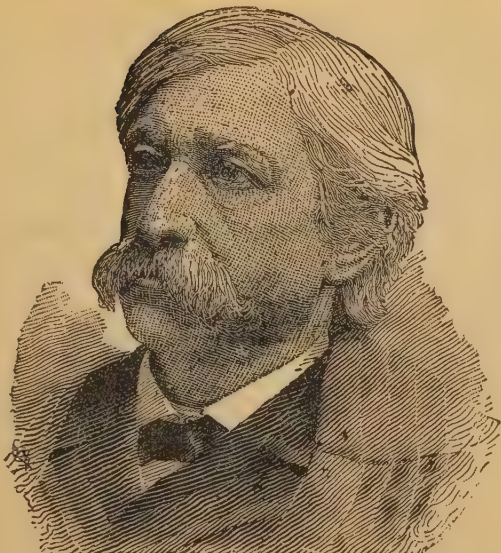
Justice of the Peace.

Oath to be administered to a witness by the arbitrators: You do solemnly swear, that the evidence you shall give to the arbitrators here present in a certain controversy submitted to them by and between Henry Smith and Richard Brown, shall be the truth, and nothing but the truth, so help you God.

Nations by a system of arbitration are avoiding bloody and protracted wars.

Arbitration Best for Farmers.

Arbitration is almost invariably preferable to litigation. It is not only the easiest, quickest and cheapest way to settle disagreements, but saves much vexation and subsequent dissension. Were individuals, corporations and nations to arrange their disputes by arbitration, instead of resorting to litigation and warfare, the people would be saved millions of treasure, and the world spared much shedding of blood. A peaceful settlement of difficulties is usually followed by prosperity, while "going to law" or war usually results in loss and suffering to both contestants. Indeed, litigation and warfare are twin relics of the dark ages, and so long as they continue in vogue we may look in vain for harbingers of the promised millennium. Of all classes, farmers should, so far as possible, avoid entering into litigation; for whether they win or lose, they are proverbially worsted, the lawyers usually taking the cream, and leaving only the skim-milk for the winning contestant. Truly, there is neither glory nor honor, profit nor pleasure in litigation, and the less people who profess to live "on the square," and, according to the Commandments, have to do therewith, the better it will be for both their present and future peace and prosperity. Even in the most aggravating case of trespass, and the like, no good citizen should resort to the law, until all amicable attempts at settlement have failed. Indeed, and finally, whatever may be the provocation, don't get mad and impulsively prosecute your neighbor, but keep your temper.



MELVILLE M. FULLER, CHIEF JUSTICE OF THE U. S.

"When you deal with an agent you do business at your own risk."

HOW TO DO BUSINESS WITH AN AGENT.

1. **Agency.**—Agency is one of the most important relations which exists in the transaction of the ordinary business affairs of life.

2. **Implied Agency.**—Agency may be implied from previous dealing and transaction between the parties. If the Principal has held a person out as an agent he will be bound by his acts, even though as a matter of fact the agent had no authority to represent him.

3. **Agents.**—An agent is defined to be one who is authorized to represent another, who is called the principal, and when so authorized acts for and in the place and stead of the principal. A man may do through his agent whatever he may lawfully do himself. Persons not of age, married women and aliens may act as agents for others. Factors, brokers, attorney, etc., are but agents in a business sense.

The acts of the agent, if exercised within the powers delegated, bind the principal and become the latter's acts and deeds, but the agent's authority may be revoked by the principal at any time. Authority given to two persons must be executed by both to be binding on the principal.

4. **Special Agent.**—A special agent is one authorized to do one or more special things in pursuance of particular instructions, or within restrictions necessarily implied from the act to be done.

5. **General Agent.**—A general agent is one authorized to transact all his principal's business, or all his business of some particular kind, or at some particular place. If an agency is proved without its extent being shown it will be presumed to be a general agency. The acts of a general agent will bind the principal even though he had no authority to do them, provided he acts in the general scope of the business which he was authorized to transact.

6. **Authority of Agent.**—If a special agent exceeds his authority, the principal is not bound, but if a general agent exceeds his authority the principal is bound, provided the agent acted within the ordinary and usual scope of the business he was authorized to transact, and the party dealing with him did not know he was exceeding his authority.

7. **Authority How Given.**—The authority of an agent may be constituted in three ways: By deed under seal, by writing, or by mere words. Express authority is given to an agent by what is called a *power of attorney*. If the authority is to execute a writing under seal and acknowledged, the power of attorney must be likewise under seal and acknowledged. An agent to sell land, or to do any important business, where he is required to make contracts, draw or sign notes, drafts or checks should be appointed by "power of attorney."

8. **Agent's Acts Ratified.**—The acts or contracts of an agent made beyond the scope of his authority may be ratified by the principal, and when so ratified are binding on the latter.

9. **Agent's Responsibility.**—An agent concealing his principal is himself responsible, and if acting fraudulently or deceitfully is himself responsible to third parties. He cannot appoint a substitute or delegate his authority to another, without consent of his principal.

10. **Principal's Liability.**—The principal is liable to the third person for the negligence or unskillfulness of the agent, when he is acting in the fulfillment of the agency business. The principal is liable for all acts of his agent

within the scope of his agency, but money paid by an agent can be recovered by the principal, if it has been paid by mistake. The knowledge of the agent relating to the business of the agency is binding upon the principal, and notice to an agent as to matters relating to the agency is notice to the principal.

11. Authority May Be Revoked.—The authority of an agent may be determined: First, by the express revocation thereof by the principal. Second, by renunciation of such power by the agent. Third, by the death of the principal, which also revokes the agency. Fourth, by the expiration of the time within which the agent was to perform the acts which were to be done by him, or by him having completed and fully performed the commission and closed the business which he was to transact. Fifth, by the sale of the subject matter of the agency.

12. Revocation Takes Effect When.—A revocation of authority takes effect, so far as the agent is concerned, when he received notice thereof. So far as third persons are concerned when they receive notice of such revocation. Personal notice or its equivalent is required, and is sufficient to those who have dealt with the agent. Advertising the fact would be sufficient as to all others. Without a sufficient notice of the revocation, a contract made in good faith with the agent after revocation will bind the principal the same as before.

13. Caution.—Persons dealing with agents who are strangers should be very careful to ascertain that the agent had authority to transact the business in hand. In all transactions in regard to real estate the authority of the agent should be in writing, signed by the owner of the property, in order to be binding upon him. In all cases of doubt as to the authority of an agent or the extent of his authority, it would be wise to require of the agent a written proof of his agency and the extent of his authority.

POWER OF ATTORNEY.

KNOW ALL MEN BY THESE PRESENTS, That *I, James L. Binton, of the Village of Naperville, County of Du Page and State of Illinois*, have made, constituted and appointed, and BY THESE PRESENTS do make, constitute and appoint *Henry J. Lundy* true and lawful Attorney for me and in my name, place and stead, to lease, sell, or make any other disposition whatever of the following described premises, to-wit: Lots three (3) and four (4) of Block, five (5) in the Town of Honey Grove, County of Beeswax and State of Texas, and to sign, seal and deliver any agreement, assignment, assurance, conveyance or lease to any persons who shall purchase, or agree to purchase, such property, or any part thereof, and in due form of law to acknowledge any such instrument necessary to the proper conveying or leasing said premises, or any part thereof, giving and granting unto my said Attorney full power and authority to do and perform all and every act and thing whatsoever, requisite and necessary to be done in and about the premises, as fully to all intents and purposes, as I might or could do if personally present, with all power of substitution and revocation, hereby ratifying and confirming all that my said Attorney or his substitute shall lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, I have hereunto set my hand and seal the 2nd day of January, one thousand eight hundred and ninety-six.

Signed, Sealed and Delivered
in Presence of

}

James L. Binton. (SEAL)

To be properly acknowledged before officer, the same as a deed, according to the law of the State.



"His burden of debt he bore to the grave."

HOW TO COLLECT DEBTS.

1. If no settlement can be reached by mutual agreement, and every effort has been exhausted for reaching a settlement, the next thing to do is to carry the matter into the courts and there have it adjusted according to law. But this method is both expensive and uncertain. A settlement, though not very satisfactory is often better than the results which can be reached through the courts.

2. **ARREST.**—The arrest of the debtor can only be made to secure the person of the debtor (or defendant) while the suit for debt is pending, or to force him to give security for his appearance after judgment, but in some States no arrests are allowed, except in criminal cases.

3. **ATTACHMENT.**—This is a writ issued by the Justice of the Peace or Judge, or some other officer having jurisdiction, commanding the sheriff or constable to attach the property of the debtor, to satisfy the demands of the creditor. This writ may be issued at the beginning or during the suit. In some States, Alabama, Illinois, Louisiana, Mississippi, Missouri and others, the creditor may retain possession of the property and give a bond as a guarantee that the property will be held for the debt in case he is defeated in the suit. All attachments lose their validity in case the debtor (or defendant) wins the suit.

4. **JUDGMENT AND EXECUTION.**—A suit is ended by the courts

giving a judgment, either in favor of the debtor or the creditor. If the attachment is in favor of the plaintiff and the defendant refuses to pay the amount of the judgment, an execution is issued by the court which commands the sheriff to take sufficient property of the defendant, if it can be found, to satisfy the judgment. The sheriff may also seize the person of the defendant and imprison him until he pays judgment or the same is discharged by judicial decision of insolvency. Real estate, however, cannot be sold on execution in some States, unless a jury should find that the profits in rents, etc., will not pay the judgment within the limit of seven years, or some other time fixed by law.

5. GARNISHMENT.—After judgment has been rendered, the money or goods due the defendant, if in the hands of a third person, may be attached to pay the plaintiff. The person in whose hands the money or goods attached are, is known in law as the garnishee or trustee.

6. MECHANICS' LIENS, HOMESTEAD EXEMPTIONS, NOTES, MORTGAGES, CONTRACTS, ETC., are explained under proper headings in other parts of the book.

THE CREDIT SYSTEM—ITS ADVANTAGES AND DISADVANTAGES.

1. There are many good reasons why people should pay cash for everything purchased. Hopeful people will always buy more freely if they can get it on credit, and are never anxious about pay day to come around.

2. Remember that those who sell on credit *must charge from ten to fifteen per cent. more for goods* in order to cover the interest and risks. It has been found that from seven to ten per cent. of trusted out accounts become worthless.

3. It is always uncertain which of the trusted persons will fail to pay his account, and consequently all persons buying on credit have to share the extra prices, in order to meet the losses which all business men sustain that do a credit business.

4. Remember the man who can pay cash for goods, or whatever purchases he may make, *can always secure a better bargain than the man who buys on credit.* It therefore will be a great saving if every one could manage, by rigid economy if necessary, to pay cash for everything they buy. It would pay a high rate of interest on everything purchased.

5. Persons who buy real estate, or merchants who buy large quantities of goods, may often find it necessary to buy on credit. Many of our wealthiest farmers and business men made their money largely in having the benefit of credit, but, at the same time, if cash could be paid for everything purchased, whether real estate or other articles, it would be a great saving to the purchaser.

6. *Keep your word as good as a bank and you will always have credit when you desire it and friends when you need them.*

POINTS OF LAW AND LEGAL FORMS.

AFFIDAVITS.

An affidavit is an oath or affirmation made in writing, sworn or affirmed to, before an officer empowered to administer the same.

The following is a common form, and with certain modifications can be made to apply to almost any case:

COMMON FORM OF AFFIDAVIT.

STATE OF ILLINOIS }
COUNTY OF HENRY } ss.

John Jones being duly sworn on his oath states that he is well acquainted with the hand writing of Daniel Seitz one of the subscribing witnesses to the deed hereto attached; that affiant has frequently seen him write and knows his signature; that he believes that the name of the said Daniel Seitz signed in the said deed is in the handwriting of the said Daniel Seitz, and further affiant says not.

Subscribed and sworn to before me this 28th day of Febru- ary A. D. 1896. E. M. SCHWARTZ. Notary Public.	}	(Signed) JOHN JONES.
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N. B.—The beginning and the conclusion can be used for any affidavit which may be required. It is impossible to give a general form which will meet all circumstances.



Agreement for the Hiring of a Clerk.

THIS AGREEMENT, made this twenty-eighth day of June, one thousand eight hundred and ninety-six, between John Smith, of the Town of Naperville, in the County of Du Page, and State of Illinois, of the first part, and Richard Brown of the City of Chicago, in the County of Cook, State of Illinois, of the second part, witnesseth :

That the said John Smith has agreed to enter the service of the said Richard Brown as clerk, and covenants and agrees to and with the said Richard Brown, that he will faithfully, honestly, and diligently apply himself and perform the duties of a clerk in the store of the said Richard Brown, and faithfully obey all the reasonable wishes and commands of the said Richard Brown, for and during the space of one year from the thirtieth day of May next, for the compensation of Six Hundred Dollars (\$600) per annum, payable monthly.

And the said Richard Brown covenants with the said John Smith, that he will receive him as his clerk for the term of one year aforesaid, and will pay him for his services as such clerk the sum of Six Hundred Dollars (\$600) annually, in monthly payments.

In witness whereof, we have hereunto set out hands and seals, this twenty-eighth day of May, A.D. 1896.

John Smith.

(SEAL.)

Richard Brown.

(SEAL.)

John H. Wagner.

AGREEMENT TO CULTIVATE LAND ON SHARES.

This agreement, made this first day of March, 1896, between H. M. Schrepfer, of the town of Cohocta, in the County of Livingstone, State of Michigan, party of the first part, and Richard Brown, of the City of La Salle, County of La Salle and State of Illinois, party of the second part, Witnesseth: That the said party of the first part has leased to the party of the second part the southwest quarter of Section 10, Township 33 north, Range 3, east, of the 3rd P. M., in La Salle County, Illinois, for the term of two years from March 1, 1896. Said party of the second part covenants to cultivate said land in good workmanlike manner, so as to raise the greatest amount of grain thereon which the season and the land will permit; to keep the land free from noxious weeds, haul out the manure at least once each year and keep all buildings and fences on said premises in repair, and to deliver to the party of the first part, at his residence in said City of La Salle, one-half of all hay, grain, and other crops raised on said farm, the small grain to be divided at the machine and delivered immediately after the same is threshed, the corn to be husked and cribbed on or before the first day of December in each year. Said party of the second part further agrees to pay four (\$4.00) dollars per acre for all lands on said premises used as pasture, such rental to be paid to the party of the first part on or before October 1st in each year. Said party of the first part agrees to furnish all material which may be necessary to make the repairs herein provided for, at the railroad station, in said City of La Salle, as the same shall be needed.

A violation of any of the covenants herein contained will authorize the party of the first part to declare this lease forfeited and recover possession of the premises hereby demised.

In witness hereof, the parties hereunto have set their hands and seals the day and year first above written.

(Signed) H. M. SCHREPFER. [Seal.]
RICHARD BROWN. [Seal.]

N. B. It is not necessary to go to a lawyer or notary to make a valid agreement. State what you mutually agree to in plain language. Follow the above form as near as possible.



AN AGREEMENT TO BUILD A HOUSE.

This agreement made this 16th day of July 1896 between John Reid, of Lisle, Illinois, party of the first part, and C. Cooper, of Naperville, Illinois, party of the second part, Witnesseth: That the said party of the second part for and in consideration of the sum of fifteen hundred (\$1,500.00) dollars, to be paid as hereinafter stated, covenants and agrees with the party of the first part that he will within the space of six months from the date hereof in a good substantial and workmanlike manner erect, build, and finish on Lot Two (2) in Block Three (3) of Park Addition to Naperville, Illinois, a dwelling house in accordance with the plans and specifications hereunto annexed and made a part hereof.

It is further agreed that the party of the first part shall at all times furnish to the said party of the second part all such stone, brick, lime, cement, lumber, and such other materials as may be required by him for the construction of said house, and such lumber and materials to be delivered upon said lot from time to time as required by said party of the second part. Said party of the first part agrees to pay the said party of the second part the sum of five hundred (\$500.00) dollars when the building is enclosed and the roof is on. Five hundred (\$500.00) dollars when the house is plastered and the chimneys erected, and the balance upon the completion of the contract.

In witness whereof the parties have hereunto set their hands and seals the day and year first above written.

Signed: { JOHN REID. [Seal.]
C. COOPER. [Seal.]



PROPOSAL TO ERECT PUBLIC BUILDING.

To the Directors of School District No. 7, Township of Milton, Du Page County, Illinois:

We propose to erect, complete and finish, on the lots owned by you in your district, a schoolhouse according to plans, specifications and details this day furnished to us, and from which these estimates are prepared, and upon which they are based.

We propose to furnish all materials of every kind and character required to be used in the construction and the completion of said building, and we agree that the work, when completed, and all materials, shall fully and strictly comply with the plans and specifications hereinbefore mentioned, and that said building shall be completed and ready for occupancy on or before six months from the date hereof.

We propose to construct said building and complete it in accordance with the foregoing proposition for the sum of ten thousand (\$10,000.00) dollars, payable as follows: \$5,000.00 when the walls are up and roof is on; \$2,000.00 when the plastering is completed, and the balance on completion of the building.

We hope this proposition may be accepted by your honorable board.

Dated this 13th day of May, 1896.

JAMES HARRIS & Co.



IT TAKES TWO TO MAKE A CONTRACT.

HOW TO WRITE A CONTRACT.

Rule :—1. The parties to a Contract are taken in the order in which they are written and referred to as “the party of the first part,” “the party of the second part,” without repeating their names. It matters not which name is written first.

2. After writing the date, names of the parties and their places of residence, state fully all that the first party agrees to do, and then state all that the second party agrees to do.

3. Next state the penalties or forfeitures in case either party does not faithfully and fully perform, or offer to perform, his part of the agreement.

4. Finally, the closing clause, the signatures and seals, the signatures of witnesses are written. (A seal is simply the mark of a pen around the word “seal,” written after the signature.)

No particular form of legal language is necessary. Use your own words and state in a plain way just what you want *done*. Anyone who can write a letter and express his desire in an intelligent manner can write a contract.

Errors in grammar or spelling do not affect the legality of the agreement.

If the language should be obscure on certain points, the “court” will always interpret the *intent* of the parties, when they entered into the agreement, provided the intent can be gathered from the terms of the instrument itself.

When an agreement is written it must all be in writing. It cannot be partly written and partly oral.

The Law Governing all Kinds of Contracts.

1. A contract is a mutual agreement between two competent parties for a valuable consideration to do or not to do a particular thing.
2. It must have, 1. Parties ; 2. Subject Matter ; 3. Consideration ; 4. Assent of the parties. There cannot be a contract when any of these are wanting.
3. A consideration is the *thing* which induces a person to make a contract.
4. An alteration of a contract in a material part, after its execution, renders it void.
5. A contract the law forbids is void. Fraud renders all contracts void.
6. A contract made by a minor, a lunatic, or an idiot is not binding upon him, yet he can hold the party with whom he contracts, to all the conditions of the contract.
7. A contract not consistent with law or for immoral purposes is void.
8. A fraudulent contract may be binding on the party guilty of fraud, although not laying any obligation on the part of the party acting in good faith.
9. A contract for the sale or purchase of personal property over a certain amount—ranging from \$30 to \$200 in some States—must be in writing.
10. A contract which cannot be performed within a year must be in writing.
11. A guaranty must be in writing.
12. If no time of payment is stated in the contract, payment must be made on the delivery of the goods or performance of the contract.
13. A contract totally restraining the exercise of a man's trade or profession is void, but one restraining him in any particular place is not void.
14. An offer or proposal, which includes the essential parts of a contract, becomes a contract as soon as accepted.
15. A contract required by law to be in writing cannot be dissolved by verbal agreement.
16. A contract cannot be partly written and partly verbal. It must be wholly written or wholly verbal.

IGNORANCE OF LAW EXCUSES NO ONE



JUSTICE.

CONTRACTS THAT ARE NOT LAWFUL.

1. A contract to commit a breach of peace.
2. A contract in violation of a statute of the State in which it is made.
3. An agreement to prevent competition on a sale under an execution.
4. An agreement to prohibit the carrying on of a trade throughout the State.
5. A contract with an intoxicated person, lunatic or minor.
6. All agreements in which there is fraud.
7. An agreement made by threats or violence.
8. A contract impossible in its nature : such as crossing the ocean in one day, is void.
9. Guardians, Trustees, Executors, Administrators or Attorneys cannot take advantage of those for whom they act by becoming parties to contracts in which their wards are interested.
10. Useless things cannot become the subject of a contract: such as agreeing not to go out of the house for a month.

11 The right to vote or hold office, etc., cannot be sold by contract.

12. Contract without a consideration: such as a promise to make a gift, cannot be enforced.

13. An agreement for immoral purposes.

14. Where consent to an agreement is given by mistake, it cannot become a contract.

15. If a thing contracted for was not in existence at the time of making the contract, such as buying a horse and not knowing that he was dead at the time, is not good.

16. If a person agrees to serve as a laborer or clerk, he cannot be compelled to fulfill his agreement; damages, however, can be recovered for a failure to perform.

17. Two or more persons intentionally cannot make a contract to the injury of a third person.

18. Wagers or bets cannot be collected by law.

19. More than legal interest cannot be collected.

20. Contracts for concealing felony or violating public trust, for bribery and extortion are prohibited.

21. Contracts in which there is misrepresentation or concealment of material facts cannot be enforced. It is fraud to conceal a fraud.

22. Money borrowed for the purpose of betting, the lender knowing it to be for that purpose, cannot be collected.

23. If any part of a contract is illegal, the whole is illegal.

24. A verbal release without payment or satisfaction for the debt is not good. Release must be under seal.

25. If there are two parts to a contract, and one conflicts with the other, the first part holds good in preference to the last.

26. An agreement with a thief to drop a criminal prosecution, by his bringing back the goods and paying all damages, is not good, and will be no bar to a future prosecution.



AN OLD-TIME JUSTICE OF THE PEACE.

THE VITAL PART OF A CONTRACT.

CONSIDERATION.

1. **Definition.**—A consideration is the thing which induces parties to make a contract. It is the substantial cause or reason moving parties to enter into an agreement.

2 **A Sufficient Consideration.**—The law does not require that the consideration should be a good or bad bargain. As long as something is done or suffered by either party, the consideration is good. The smallest consideration is sufficient to make it legal. The value of the consideration is unimportant. For instance : \$10,000 worth of property can be sold for \$1.00.

3. **Promise of Marriage.**—If a man promises a woman any certain sum of money if she would agree to marry him, he can be made to fulfill his promise, and the court will hold that the promise of marriage was a sufficient consideration for the money.

4 **A Valuable Consideration.**—A valuable consideration is one which is equal to money or may be changed into money.

5. **A Good Consideration.**—A good consideration is one which is based upon love, gratitude or esteem, or blood relationship. But in order to make a good consideration legal, the agreement has to be performed by one or both parties. For instance: If a man should promise to give a lady \$500 because he loved her, it could not be collected, but if the money was once paid to the woman it could not be recovered.

6. **Gratuitous Consideration.**—A gratuitous consideration is a consideration where something is done or money promised on account of some affection or charity, and like a good consideration the act must be performed in order to hold the party. For instance: If a father gives his son a note on account of his affection for him, the son cannot force the father to pay it; so also if a person subscribes for a church or charitable society he cannot be compelled to pay it, unless the church or society can show that it depended upon that money when it entered upon some contract, or assumed some obligation on account of it.

7. **Immoral Consideration.**—All considerations which are immoral are consequently illegal.

8. **Impossible Consideration.**—If a man should promise to cross the ocean in one day, or walk from Philadelphia to New York in two hours, or any consideration of such an impossible character, is illegal and void.

A CONTRACT FOR RENTING A FARM.

I, *John Smith*, do lease unto *J. T. Hoge*, the *N. ¼ of the SE. ½ of Section 25* in the *Town of Flat Springs*, County of *Andrew*, and State of *Missouri*, for a term of *Two Years* from the *first of March next*, upon the payment of *Three Hundred (\$300) Dollars*, as follows: *One Hundred and Fifty Dollars the 20th of June next*, and the remaining *One Hundred and Fifty Dollars the first day of the following December*.

Witness my hand, this *20th* day of *October*, 1896.

John Smith.



CONTRACT FOR HIRING A FARM HAND.

This agreement, made this first day of May, 1896, between Fred J. Dolan, of Naperville, Illinois, party of the first part, and John P. Rickert, of the same place, party of the second part, Witnesseth: That in consideration of the sum of twenty (\$20.00) dollars per month to be paid as hereinafter stated, the said Fred J. Dolan agrees to work for said Rickert as a general farm laborer on his farm, in the Township of Naperville, County of Du Page, and State of Illinois, for the period of one year from the date hereof and as such laborer to do any and all such work as the said Rickert may from time to time require of him. And the said John P. Rickert agrees to pay the said Dolan the sum of twenty (\$20.00) dollars per month at the end of each month, and during that time to furnish him with board and lodging.

Witness the hands of the said parties the day and year first above written.

(Signed)

FRED J. DOLAN.
JOHN P. RICKERT.

LAND CONTRACT.

This agreement, made this first day of June, A. D. 1896, between John Brown, of the City of Dunkirk, in the State of New York, party of the first part, and Norman C. Stull, of the City of Buffalo, of the same State, party of the second part, Witnesseth That if the said party of the second part shall first make the payments and perform the covenants hereinafter mentioned on his part the said party of the first part hereby agrees to convey and assure to the said party of the second part in fee simple, clear of all incumbrances whatsoever, by a good and sufficient warranty deed the following described premises to wit: (Here describe property to be conveyed), and the said party of the second part covenants and agrees to pay to the said party of the first part the sum of two thousand (\$2,000.00) dollars as follows:

Five hundred (\$500.00) dollars cash in hand paid, the receipt whereof is hereby acknowledged, balance on March 1, 1897, with interest at the rate of 6 per cent. per annum, payable annually after the date hereof, and all taxes and assessments legally levied or imposed upon said land subsequent to the year 1895. A complete abstract of title brought down to date to be furnished by said party of the first part on or before thirty days from the date hereof, in case title, on examination should prove to be defective then the said party of the first part agrees to perfect the same within a reasonable time, and in case of failure so to do, or in case said title can not be perfected the cash paid hereon shall be refunded and this contract shall become null and void. Deed to be delivered March 1, 1897, deferred payments to be secured by note and first mortgage by the party of the second part on the premises hereby sold. This contract shall extend to, and be obligatory upon the heirs, administrators, executors, and assigns of the respective parties.

In testimony whereof the parties have hereunto set their hands and seals the day and year first above written.

(Signed) JOHN BROWN. [Seal.]

NORMAN C. STULL. [Seal.]

Witness: Richard Peck.



A Contract for the Sale of Horses, Cattle, or other Personal Property.

This agreement, between A. B. Johnson and C. D. Coddington, made this nineteenth day of October, 1896, witnesseth:

That said A. B. Johnson, for the consideration hereinafter mentioned, shall sell and deliver on the first day of November next to said C. D. Coddington at his residence, One Double Wagon, Two Four-Year-Old Colts and Six Yearling Heifers.

That said C. D. Coddington, in consideration thereof, shall pay said A. B. Johnson Three Hundred Dollars, upon the delivery of said property.

In witness whereof we have this day set our hands and seal.

A. B. Johnson.

C. D. Coddington.

A Contract for Laying Tile or Building Fence.

This agreement made this first day of July, 1896, between H. C. Nauman of the first part, and G. C. Gasser of the second part, Witnesseth: That the said party of the first part agrees to lay upon the farm of the said party of the second part of Naperville Township, Du Page County, Illinois, 120 rods of six inch tile at such places on said farm as the said party of the first part may designate for the sum of forty cents per rod, said tile to be so laid that there shall be sufficient fall to properly drain the land through which the same is laid. And all ditches to be properly filled by the party of the first part; and the said party of the second part agrees to pay said party of the first part one-half the consideration above expressed when he has laid 60 rods of said tiling and the balance on completion of the contract.

Witness the hands of the parties hereto the day and year above written.

(Signed) H. C. NAUMAN.
G. C. GASSER.

The Law Governing the Sale and Transfer of Property.

1. A sale is the exchange of property for money, which is either paid at once or to be paid in the future.

2. There are many complicated things pertaining to the sale of property which every thoughtful man should understand.

3. The thing sold must either exist at the time of the sale or there must be a well-founded reason that it will be in existence and in possession of the seller. For example: If a man sold a horse for \$100 and it transpires that the horse died before the actual time of the sale the transaction would not be a sale, otherwise it would.

4. Grain or other produce not yet sowed or planted can be sold because the seller may reasonably expect a crop. Machinery or other manufactured goods may be sold before they are made and the seller can be held to perform his part of the contract the same as though the articles actually existed at the time of the sale.

5. The thing sold must be specified and set apart as the property of the buyer. For example: The sale of ten bushels of wheat from a certain bin would not be a sale unless the grain was measured and set apart.

6. The price must be fixed by mutual consent, or be understood by the terms of the sale.

7. Any defects which can be seen in property or in animals when sold does not relieve the buyer from meeting his contract though he claims that he did not see the defects. *The law does not furnish eyes for the purchaser of property.*

8. But defects in property or animals which cannot be seen, and the seller makes no statement in reference to such defects, but recommends it as good or sound, relieves the buyer from fulfilling his part of the contract.

9. When nothing is said as to the time of payment when the sale is made the law presumes that the property must be paid for before the purchaser can secure possession. If credit is agreed upon the buyer is entitled to immediate possession.

10. The purchaser, in order to make good his bargain, should always advance a small amount, to bind the seller to the bargain.



FORM OF BILL OF SALE.

KNOW ALL MEN BY THESE PRESENTS, That I, Jared K. Long, of Aurora, Kane County, Illinois, in consideration of twenty-three hundred (\$2,300.00) dollars to me in hand paid by F. A. Lueben, of the same place, the receipt of which is hereby acknowledged, do hereby grant, sell, assign, transfer and deliver unto the said F. A. Lueben, his heirs and assigns the following goods and chattels, to wit:

Four Oxen, at \$50.00 each	\$200.00
20 head of Sheep, at \$4.00 each	80.00
Two sets of Harness, at \$20.00 each	40.00
Two Farm Wagons, at \$35.00 each	70.00
One Corn Planter, at \$20.00	20.00
Three Plows, at \$15.00 each	45.00

To have and to hold all of the said goods and chattels to the said F. A. Lueben, his heirs and assigns forever. And I do hereby covenant to and with the said F. A. Lueben that I am the legal owner of said goods and chattels; that they are free and clear from all other and prior sales and incumbrances; that I have good right to sell and convey the same as aforesaid, and that in the peaceable possession of the said F. A. Lueben I will forever warrant and defend the same against the lawful claims and demands of all persons whomsoever.

In witness whereof I have hereunto set my hand and seal this 29th day of June, A. D. 1896.

(Signed)

J. K. LONG. [Seal.]

In the presence of
CHARLES E. SELBY.

LANDLORD AND TENANT.

1. Definition.—This is a term used to denote the relation which exists by virtue of a contract expressed or implied between two or more persons for the possession or occupation of land and tenements, either for a definite period of life or at will.

The landlord is the person who lets the premises. The tenant is the one who occupies the lands or premises in subordination to the landlord only. The contract between the two is called a lease.

Rule.—The party granting the possession and profit is called the lessor, and the party to whom the grant is made is called the lessee. The most common forms of tenancy are for life or for a definite term. Either so many years, so many months or so many weeks.

2. Leases.—Leases which are to run for more than a year or which are not to be performed within a year must be in writing, or they are absolutely void. Leases for a year or less and which can be performed within a year are valid if not in writing. To avoid misunderstanding, disputes, and possible litigation it is always best that the lease be in writing and signed by both parties.

3. Leases for Life.—Are those which are terminated either by death of the lessee or of some other person living at the date of the lease. Unless such leases contain covenant to the contrary the life tenant or the lessee is required to pay all taxes on the premises, and keep the same in repair.

4. Leases for Years.—The lessor, unless it is otherwise expressly provided in the lease, is under obligation to put the tenant in possession and see that his possession is not disturbed by any title paramount to his landlord. He is not required to make repairs unless he so stipulates in the lease, nor is there an implied contract on his part that the premises are fit for the purpose for which they are let. He must pay all taxes regularly levied and assessed against said premises and keep the buildings on said premises insured at his own expense if he desires to carry insurance.

5. Implied Agreement by Tenant.—Where there is no agreement to the contrary, the tenant is bound to take possession of the premises, take ordinary care of the same, keep them in a tenantable condition, and make repairs made necessary by his negligence, except injuries resulting from wear and tear and inevitable accident.

If the premises leased is a farm, he is also required to cultivate same in the manner required of good husbandry.

He must not commit waste, alter buildings or fences and must surrender up the premises at the end of his term in as good condition as when entered upon originally, wear and tear excepted. He is not required to pay taxes or keep buildings insured, and must pay the stipulated rent at the time it becomes due by the terms of his lease. If no time is specified in his lease, then the rent is due at the end of the term. He may underlet the premises or assign the lease unless his lease contains covenants to the contrary.

If he places permanent improvements upon the premises which are so attached to the buildings or land that they can not be removed without injury, he has no right to remove the same unless his lease so provides. He may remove trade fixtures if the same are removed from the premises before the expiration of his lease.

6. Special Covenants.—The usual covenants contained in the ordinary lease provide for the yielding up of the possession of the premises at the end of the term without notice, in as good condition as when the same were entered upon by the lessee, loss by fire, inevitable accident and ordinary wear excepted. There is also usually a covenant providing against underletting or assigning the lease, and a covenant that in case of non-payment of rent, or failure to perform any of the covenants of the lease the lessor shall have the right to terminate said lease and recover possession of the premises.

Farm leases usually provide, in addition to the covenants above mentioned, that the tenant shall keep the fruit and ornamental trees, vines and shrubbery free from injury of stock and from plowing or otherwise; that the lessee will draw out the manure and spread it on the premises; that no straw shall be sold and removed from the premises during the term or at its termination; that the tenant will keep the buildings and fences in repairs, the landlord to furnish necessary material; that the landlord may do fall plowing on the stubble ground in the fall after the grain has been removed therefrom, and that he may enter for the purpose of making repairs, viewing the premises and sowing timothy seed.

Sometimes the landlord covenants to make all new fences, to furnish water and many other provisions which may be inserted as the occasion may require. All leases, of course, provide for the payment of rent at fixed periods.

The following are short forms for leases. For more complete forms see Nichol's Business Guide.



A Lease for Renting a House.

KNOW ALL MEN BY THESE PRESENTS :

That I have, this sixth day of September, 1896. let and rented unto Andrew Jay my house and premises, number 142 on Archer Street, in the town of Livermore, and State of Iowa, with the sole and uninterrupted use and occupation thereof for one year, to commence the first day of May next, at the monthly rent of twenty dollars, payable in advance.

Witness my hand and seal,

Henry R. Rilling, [Seal.]

SHORT FORM OF LEASE.

John Parks leases to J. B. Moulton (description of premises) for a term of . . . upon the payment of . . . Dollars.

Dated this 1st day of August, 1896.

J. K. Miller.

A LEASE—FOR CASH RENT.

THIS INDENTURE, made this *Fifth* day of *February*, A.D. 1896. between *Samuel E. Sport*, of the Town of *Naperville*, in the County of *Du Page* and State of *Illinois*, of the one part, and *James R. Giddings*, of the Town of *Lisle*, in the County and State aforesaid, of the other part ;

WITNESSETH, That the said *Samuel E. Sport*, for the consideration hereinafter expressed, hath demised, granted and leased, and doth by these presents hereby demise, grant and lease unto the said *James R. Giddings* and his assigns lots one (1) two (2) and three (3) in block seven (7) of the original Town of *Naperville*, as shown by the plat of said town on file in the Recorder's office of the said *Dupage County*. And also the Northwest quarter (N. W. $\frac{1}{4}$) of Section Eight (8) in Township Twenty (20), Range Nine (9), East of the 3rd Principal Meridian, and containing one hundred and sixty (160) acres according to government survey. All aforesaid real estate being situate in the County of *Du Page* and State of *Illinois*, together with all the privileges and appurtenances thereunto belonging. TO HAVE AND TO HOLD the above described premises for and during the term of five years from the date hereof.

And the said *James R. Giddings* doth covenant and agree to pay the said *Samuel E. Sport*, or his assigns, the sum of *One Thousand Dollars*, as yearly rent for said premises, in 2 equal payments of *Five Hundred Dollars* each, at the expiration of each and every *six* months from date, during the continuance of this Lease.

IN WITNESS WHEREOF, The said parties have to this and one other instrument of the same tenor and date interchangeably set their hands and seals, the day and year first above written.

Signed, Sealed and Delivered
in Presence of

J. H. Nichols

}

Samuel E. Sport.

(SEAL)

James R. Giddings.

(SEAL)

SECURITY FOR RENT.

For value received I hereby enter myself security for the full payment of the rent reserved in the within lease, and guarantee the payment of the rent and full performance of all covenants contained herein by the said party of the second part.

FRED. A. LUEBEN.

7. Termination of Lease.—Under the strict rules of the common law the landlord might terminate the lease for non-payment of rent, but in order to do so it was necessary for him to go upon the premises and make demand for the exact amount of rent due upon the very day that the rent came due, and a failure to do this waived the right to declare forfeiture. This strict rule of the common law has been modified in nearly all the states so that it is no longer necessary to make a demand for the rent on the day the rent comes due. Instead of this most of the states provide that before the landlord shall declare a forfeiture, a demand in writing for the amount of rent due shall be served upon the tenant, and he be notified that in case he fails to pay the same within a fixed time, generally five or ten days, the landlord will elect to terminate his lease; in such cases the tenant has until the end of the last day fixed in the notice to pay the rent and save the forfeiture.

The statutes of the various states also provide that in case of breaches of other covenants contained in the lease, notice of such breach and intention of the landlord to declare forfeiture of the same shall be served upon the tenant to quit and deliver up possession of said premises within a time, generally not less than ten days.

The following is the form of notices above referred to in common use:

LANDLORD'S FIVE-DAY NOTICE.

To John Doe:

You are hereby notified that there is now due me the sum of One Hundred Dollars and.....cents, being rent for the premises situated in the City of Chicago, in Cook County, in the State of Illinois, and known and described as follows, viz.: Lot one (1) in Block two (2) of the Original town of Chicago.....

.....

And you are further notified, that payment of said sum, so due, has been demanded of you, and that unless payment thereof is made on or before the 21st day of July, A. D. 1896, your lease of said premises will be terminated. Richard Roe is hereby authorized to receive said rent so due for me.

Dated this 15th day of July, 1896.

James Smith, Landlord.

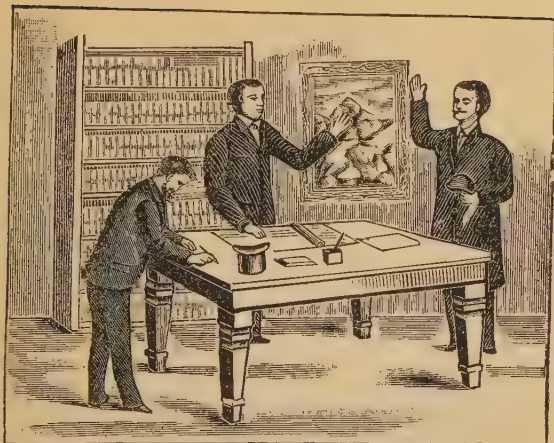
Leases in cities frequently contain covenants prohibiting the tenant from using the premises leased for the purpose of saloon, or as houses of prostitution, or for any other use which tends to depreciate the value of property leased, or of any property in its neighborhood. Such leases also frequently provide for the payment of all water rate and gas bills; and frequently leases of city property contain powers of attorney authorizing some individual by name or any attorney to appear in court and consent to the entering up of a judgment for the possession of the premises in an action of a forcible action and detainer for a breach of the covenants of the lease or payment of rent. Also power to confess judgment for all rents due.

8. Termination of Tenancy.—From year to year and month to month. Where a tenant has a lease for a year of premises with annual rent, and at the end of his term holds over without a new agreement, the law construes this to be a leasing from year to year, and such a tenancy at common law could only be terminated by either party giving the other six months' notice prior to the end of any year. This notice has been changed by a statute in Illinois to sixty days prior to the end of any year, and a shorter time has also been fixed in many other states.

A tenant who has a lease of property for one or more months, with monthly rent, who holds over after the termination of his lease, is termed a tenant from month to month, and such relation can only be terminated by either party giving the other thirty days' notice of his intention to terminate the tenancy. Such notice to be given thirty days prior to the end of any month.

9. Demand.—It is a general rule, subject to few exceptions, that in order to get possession of property, where the inception of the tenancy was lawful, either a notice to quit or a demand for possession is necessary on the part of the owner before commencing proceedings to get possession.

10. Securing Possession.—When a lease has been terminated either by its terms or by notice, and the landlord is entitled to possession, the most common method of recovering possession is to commence an action of forcible entry and detainer against the tenant for the possession of the premises. This may be done before a justice of the peace by filing a complaint and having a summons issued. If the possession of the tenant was lawful in its inception, the landlord has no right to forcibly dispossess him, and if he does so it is at his peril. Taking possession by force subjects the landlord to an action for heavy damages.



HOW TO WRITE A DEED.

- RULES:**—1. *It must be written or printed on paper or parchment.*
2. *The names of the parties and place of residence are written first.*
3. *The property must be fully described. The description should be by bounds, or by divisions of United States surveys, or by subdivisions into blocks and lots, as shown on the records.*
4. *It must express a consideration, also a covenant to “warrant and defend” and be signed and sealed by the grantor or grantors.*

CAUTION.—It must be completely written before delivery. Numbers should always be written in *words* followed by figures in parentheses. If the grantor is married, they both should join in the grant and in execution of the deed—signing and acknowledging. Where forms are prescribed by the Statutes of a State, they must be followed. The long form, however, is good in all the States.

THE LAW GOVERNING DEEDS.

1. The acknowledgment of a deed can only be made before certain persons authorized to take the same, such as Justices of the Peace, Notaries, Masters in Chancery, Judges and Clerks of the Courts, Commissioners of Deeds, etc.

2. A deed without consideration is void.

3. Any person of legal age, competent to transact business, and owning real estate, may convey it by deed.

4. The deed takes effect upon its delivery to the person authorized to receive it, and should be recorded at once.

5. After the acknowledgment of a deed the parties have no right to make the slightest alteration.

6. The person making the deed is called the *grantor*, the person to whom the deed is delivered is called *grantee*.

7. A **WARRANTY DEED**.—The grantor warrants the title to be good, and agrees to defend the same against all persons.

A **QUIT CLAIM DEED** releases only what interest the grantor has in the property.

8. Never purchase real estate without a careful examination of the title, either by yourself or a trusty attorney.

9. Always procure an abstract of title before advancing money or signing contract for purchase of land or lots.

WARRANTY DEED.—Long Form.

THIS INDENTURE, made this *Second day of March*, in the year of our Lord one thousand eight hundred and *ninety-six*, between *Andrew Samson and Polly Ann Samson, his wife*, of the *Village of Naperville*, in the County of *Du Page*, and State of *Illinois*, party of the first part, and *Ebenezer P. Stought* of the *City of Chicago*, in the County of *Cook* and State of *Illinois*, party of the second part :

WITNESSETH, That the said party of the first part, for and in consideration of the sum of *Ten thousand Eight hundred and ninety* (\$10,890.00) Dollars, in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, and the said party of the second part forever released and discharged therefrom, have granted, bargained, sold, remised,

released, conveyed, aliened and confirmed, and by these presents do—grant, bargain, sell, remise, release, convey, alien, and confirm unto the said party of the second part, and to *his* heirs and assigns, forever, all the following described lots, pieces, or parcel of land, situated in the County of *Du Page*, and State of *Illinois*, and known and described as follows, to-wit:

The North-west quarter of Section Thirty-six (36) in Township thirty-eight (38) North, of Range eleven (11) East of the Third Principal Meridian, containing one hundred and sixty acres by Government survey. Also, an equal undivided one-half interest in Lot number one (1) in Block number three (3) of Smith's subdivision of Schuyler's addition to the Village of Naperville, in the County and State aforesaid.

TOGETHER WITH ALL AND SINGULAR the hereditaments and appurtenances thereunto belonging, or in anywise appertaining, and the reversion and reversions, remainder and remainders, rents, issues, and profits thereof; and all of the estate, right, title, interest, claim, or demand whatsoever, of the said party of the first part, either in law or in equity, of, in, and to the above bargained premises, with the hereditaments and appurtenances: TO HAVE AND TO HOLD the said premises above bargained and described, with the appurtenances, unto the said party of the second part, his heirs and assigns forever

And the said *Andrew Samson and Polly Ann Samson, his wife*, party of the first part, for *themselves and their* heirs, executors, and administrators, do covenant, grant, bargain, and agree to and with the said party of the second part, his heirs and assigns, that at the time of the ensealing and delivery of these presents, they are well seized of the premises above conveyed, as of a good, sure, perfect, absolute and indefeasible estate of inheritance in law, in fee simple, and have good right, full power, and lawful authority to grant, bargain, sell and convey the same in manner and form aforesaid, and that the same are free and clear from all former and other grants, bargains, sales, liens, taxes, assessments, and encumbrances, of what kind or nature soever; and the above bargained premises, in the quiet and peaceable possession of the said party of the second part, *his* heirs and assigns, against all and every other person or persons lawfully claiming or to claim the whole or

any part thereof, the said party of the first part shall and will
WARRANT AND DEFEND.

AND the said party of the first part hereby expressly waive
and release any and all right, benefit, privilege, advantage
and exemption, under or by virtue of any and all Statutes of
the State of *Illinois*, providing for the exemption of home-
steads from sale on execution or otherwise.

IN WITNESS WHEREOF, the said party of the first part *have*
hereunto set *their* hands and seals the day and year first above
written.

Signed, Sealed and Delivered in
the Presence of

.....
Salamander S. Stone.

Andrew Samson.

Polly Ann Samson,

.....

.....

(SEAL)

(SEAL)

(SEAL)

(SEAL)

(CERTIFICATE OF ACKNOWLEDGMENT.)

STATE OF ILLINOIS, }
COUNTY OF DU PAGE, } ss.

I, John Smith, a Notary Public in and for said County,
do hereby certify that Andrew Samson and Polly N. Sam-
son, his wife, who are personally known to me to be the
same persons whose names are subscribed to the foregoing
instrument, appeared before me this day in person and
acknowledged that they signed, sealed and delivered the
same as their free and voluntary act for the uses and pur-
poses therein set forth, including a release and waiver of
the right of homestead.

Given under my hand and Notarial Seal this second day
of March, 1896.

(Signed)

[Notarial Seal.]

JOHN SMITH,
Notary Public.



A MORTGAGE SALE.

They mortgaged their farm to start their son in business.

"Now over the hill to the poor-house."

HOW MORTGAGES ARE WRITTEN.

RULES:—*Mortgages must be in writing, and must be in one single document, which contains the whole contract.*

It must be acknowledged and recorded.

Whenever a mortgage is paid a proper release thereof should be made signed and acknowledged by the mortgagee and the same recorded. In some states the endorsement of satisfaction and cancellation on the face of the mortgage authorizes the recorder or register of deeds to enter satisfaction thereof upon the records, in others a formal release must be executed and acknowledged by the mortgagee and recorded, or a release may be entered upon the margin of the record of the mortgage in the recorder's office. The important thing, however, is to see that the record in the proper office shows the satisfaction of the mortgage. The methods of so doing differ in the various states, but the general rule is as above stated.

THE LAW GOVERNING MORTGAGES.

1. Mortgages are conditional conveyances of estates or property by way of pledge to secure a debt, and become void upon the satisfaction of the indebtedness.

2. All mortgages must be in writing, and be signed and sealed.

3. There are two kinds of mortgages : a real estate mortgage, and a chattel mortgage. The former is a mortgage on real estate, the latter a mortgage on personal property.

4. A mortgagee may sell or transfer his mortgage to another party.

5. Mortgages given with the intent to defraud creditors are void, as to all persons knowing of the fraudulent intent.

6. When the debt is paid for which the mortgage was given, the mortgage is void.

7. A foreclosure is the legal proceeding to sell the mortgaged property to satisfy the debt.

8. A chattel mortgage given on personal property which is left in possession of mortgagor, is *prima facie* void as to creditors of mortgagor. To render it valid it must contain permission by mortgagee that mortgagor may retain possession of the chattels, and that mortgagor may take possession of them whenever he feels himself insecure for any reason.

9. Mortgages should be recorded with promptness after their execution. The first mortgage on record is the first lien on the property, notwithstanding another mortgage was given first, as to all persons not aware of that fact.

10. A mortgage on real estate is released by deed of relief under seal, and acknowledged, or receipt of satisfaction of the debt entered upon the margin of the record of mortgage by mortgagee.

11. Chattels must generally be acknowledged before a Justice of the Peace of the Township where the mortgagor resides.

12. *In writing mortgages always insert the same description of land and lots as given in the deeds of same property.*

MORTGAGE—Short Form.

THE MORTGAGOR, *Samuel P. Smith, and Sarah E. Smith, his wife*, of the Town of Naperville, in the County of Du Page and State of Illinois, MORTGAGE and WARRANT to *James Y. Scammon*, of the City of Chicago, County of Cook, State of Illinois,

to secure the payment of *two certain promissory notes, bearing even date herewith, for the sums of One Thousand and Fifteen hundred Dollars respectively, payable to the order of the said James Y. Scammon, in three and five years from the date thereof, respectively, with interest at the rate of seven (7) per cent. per annum, payable annually, the following described Real Estate :*

The South-West quarter of Section number Twenty-one (21) in Township number Thirty-eight, (38, North, of Range number Eleven (11) East, of the Third Principal Meridian.

Also : Lots number one (1), three (3) and five (5) in Block number nineteen (19) of Schofield's Addition to the Village of Naperville. All situated in the County of Du Page in the State of Illinois, hereby releasing and waving all rights under and by virtue of the Homestead Exemption Laws of this State.

Dated this 1st day of January, A.D. 1896.

Signed, Sealed and Delivered
in Presence of

}

Samuel P. Smith. (L.S.)

Sarah E. Smith. (L.S.)

(CERTIFICATE OF ACKNOWLEDGMENT.)

STATE OF ILLINOIS }
COUNTY OF DU PAGE } ss.

I, John Smith, a Notary Public in and for said County in the State aforesaid do hereby certify that Samuel P. Smith and Sarah E. Smith, his wife, who are personally known to me to be the same persons whose names are subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed, and delivered said instrument as their free and voluntary act for the uses and purposes therein set forth, including a release and waiver of all rights under and by virtue of the homestead exemption laws of this State.

Given under my hand and Notarial Seal this first day of January A. D. 1896.

[Notarial Seal.]

JOHN SMITH.

Notary Public.

N. B. The endorsement and transfer of a note secured by a mortgage transfers the security also, but in order to prevent the mortgagee from releasing to the prejudice of the assignee of the note it is always safest to have a written assignment of the mortgage made and recorded. In some states the assignment can be made upon the back of the mortgage and recorded. For such states the following assignment is the usual form. See Form 1.

In other states such as Illinois the assignment should be by formal separate instrument, duly executed and acknowledged in the same manner as mortgages and the same filed for record. Form 2 is the usual form for such assignments.



The Mortgage Grip Crushing the American People.

If the farmer does not lift his mortgage, it will lift him.

MORTGAGE DEBT.

In 1890 there were 4,777,698 mortgages in force in the United States, amounting to \$6,019,679,985. The annual interest charged on these is \$397,442,792.

ASSIGNMENT OF MORTGAGE.—Form 1.

KNOW ALL MEN BY THESE PRESENTS :

That I, *Henry Betzold*, the within named mortgagee for a consideration of *Eight Hundred Dollars*, (\$800), hereby assign, transfer, and set over unto *E. B. Neeman*, his heirs and assigns, the within named instrument of mortgage, and all the real estate, with appurtenances therein mentioned and described, to have and to hold the same forever. Subject nevertheless to the equity and right of redemption of the within named *A. Meyer*, his heirs and assigns therein.

In witness whereof the party of the first part has hereunto set his hand and seal this *third* day of *March*, in the year of our Lord eighteen hundred and *ninety-six*.

Henry Betzold. (SEAL)

Sealed and delivered in the presence of

E. E. Hawthorn.

ASSIGNMENT OF MORTGAGE.—Form 2.

KNOW ALL MEN BY THESE PRESENTS, That I, *James Y. Scammon*, of *Chicago*, *Cook County*, *Illinois*, party of the first part, in consideration of fifteen hundred (\$1,500.00) dollars, lawful money of the United States, to me in hand paid by *Henry Jones*, of the same place, party of the second part, do hereby sell, assign, and transfer unto the said party of the second part, his heirs, executors, administrators, and assigns, a certain indenture of mortgage bearing date the first day of *January*, 1896, made by *Samuel P. Smith*, and *Sarah E. Smith*, his wife, and all my right, title and interest in and to the premises therein described as follows, to-wit: The southwest quarter of *Section 21*, *Township No. 38 north*, *Range 11 east*, of the *3d Principal Meridian*; also *Lots Nos. 1, 3 and 5*, in *Block No. 19*, in *Scofield's Addition to the Village of Naperville*, situated in the *County of Du Page*, and *State of Illinois*, which said mortgage is recorded in the *Recorder's office of Du Page county, Illinois*, in *book 25 of mortgages*; on *page 100*, together with two notes therein described, and the money to come due thereon with all interest thereon.

To have and to hold the same unto the party of the second part, his executors, administrators, and assigns forever, subject only to the proviso in said indenture mortgage contained. And I do for myself, and my heirs,

executors, and administrators, covenant with the party of the second part that there is now actually due and owing on said note and mortgage on principal and interest the sum of sixteen hundred (\$1,600.00) dollars, and that I have a good right, to assign the same, and I do hereby constitute and appoint the said party of the second part my true and lawful attorney irrevocably in my name or otherwise, but at his own proper costs and charges to have, use, and take all lawful ways and means for the recovery of said money and interest, and in case of payment to discharge the same as fully as I might or could do if these presents were not made.

In witness whereof I have hereunto set my hand and seal this 13th day of May, A. D. 1896.

JAMES Y. SCAMMON. [Seal.]

(CERTIFICATE OF ACKNOWLEDGMENT.)

STATE OF ILLINOIS,)
COUNTY OF DU PAGE,) ss.

I, John Smith, a Notary Public in and for said County, and in the State aforesaid, do hereby certify that James Y. Scammon, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that he signed, sealed and delivered the said instrument as his free and voluntary act for the uses and purposes therein set forth.

Given under my hand and Notarial Seal this 13th day of May, 1896.

[Notarial Seal.]

JOHN SMITH,
Notary Public.

N. B. The following form of a release of mortgage is the one commonly in use in Illinois, and is a form which will effectually release a mortgage in any state, although more formal than those required by some of the states.

RELEASE.

KNOW ALL MEN BY THESE PRESENTS, That I, James Y. Scammon, of the County of Cook, and State of Illinois, for and in consideration of one dollar, to me in hand paid, and for other good and valuable considerations, the receipt whereof is hereby confessed, do hereby grant, bargain, remise, convey, release and quit claim unto Samuel P. Smith and

Sarah E. Smith, of the County of Du Page and State of Illinois, all the right, title, interest, claim or demand whatsoever I may have acquired in, through or by a certain indenture or mortgage deed, bearing date the first day of January, A. D. 1896, and recorded in the Recorder's office of Du Page County, Illinois, in book 25 of mortgages page 100, to the premises therein described, and which said deed was made to secure two certain promissory notes, bearing even date with said deed, for the sum of twenty-five hundred dollars.

Witness my hand and seal this 28th day of February, A. D. 1896.

JAMES Y. SCAMMON. [Seal.]

STATE OF ILLINOIS,)
COOK COUNTY.) ss.

I, John Smith, a Notary Public in and for said County, in the State aforesaid, do hereby certify that James Y. Scammon, who is personally known to me as the same person whose name is subscribed to the foregoing deed, appeared before me this day, in person, and acknowledged that he signed, sealed and delivered the said instrument of writing as his free and voluntary act, for the uses and purposes therein set forth.

Given under my hand and notarial seal this 28th day of February, A. D. 1896.

JOHN SMITH,
Notary Public.

FORECLOSURE OF MORTGAGE.

Methods of foreclosure vary in different states, but the general features are: Application to a court of chancery for authority to foreclose; notifying of the mortgagor; hearing the parties; reference to a master in chancery; advertising the property; selling it to the highest bidder at the specified time; deeding it to the purchaser, and paying over any surplus funds to the mortgagor.



THE MAN THAT NEVER PAYS A MORTGAGE.

HOW TO WRITE A CHATTEL MORTGAGE.

Use a legal printed form or write one like the copy given below.

A Chattel Mortgage is a mortgage on personal property, such as live stock, machinery, farm implements, etc.

1. A chattel mortgage must be acknowledged before a Justice of the Peace, or before the County Judge, in which the mortgagor resides.

2. The mortgage must be recorded.

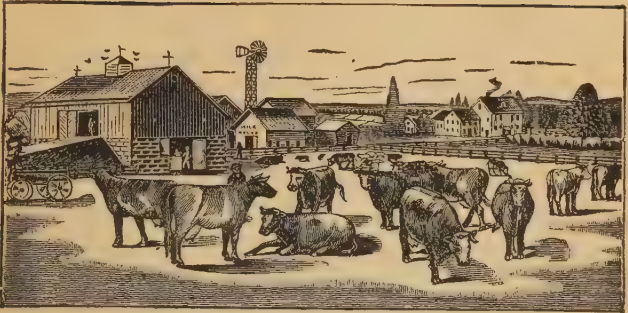
3. Chattel mortgages may not run longer than two years.

4. Chattel mortgages are usually given to secure notes of the mortgagor in the same way in which real estate mortgages are given to secure notes of the mortgagors. Greater strictness, however, is required in the acknowledgment docketing and recording of chattel mortgages than in the case of real estate mortgages. A recent statute of the State of Illinois provides that notes secured by chattel mortgages must show on their face that they are secured by chattel mortgages, or they are absolutely void. Any defense which the maker of the note secured by chattel mortgage could make against the original payee is good against the note in the hands of an endorsee even though endorsed before maturity. Chattel mortgages on household goods must be signed by the wife of mortgagor and can only be foreclosed by a court proceeding.

5. A chattel mortgage is a conditional sale of property, if the debt for which it was given is not paid.

6. The property must be taken possession of by the mortgagee on the maturity of the mortgage, or it can be taken by other creditors.

7. To sell property covered by a chattel mortgage is a criminal offense.



THE MAN WHO PAYS HIS MORTGAGE AT THE DAY OF MATURITY.

FORM OF CHATTEL MORTGAGE.

KNOW ALL MEN BY THESE PRESENTS, That I, Grace Margaret Nichols, of the town of Naperville, in the County Du Page, and State of Illinois, acknowledge myself to be indebted to A. S. Barnard, of the town of Mendon, County of Monroe, State of New York, the sum of Four Hundred Dollars (\$400.00) with six per cent. interest from date, and for the security of said sum I do hereby mortgage and sell and assign to the said A. S. Barnard, One Bay Mare, 4 years old, One Wagon, One Set of Double Harness and all my Household Furniture of every description in my house on Washington Street in the town of Naperville.

And, I hereby authorize and empower the said A. S. Barnard to take possession of said property and effects, he to sell the same and appropriate the proceeds to the payment of said debt and interest.

Witness my hand and seal this first day of December, 1896,

Grace Margaret Nichols. (SEAL)

Chattel mortgages in South Dakota are not acknowledged, but require two witnesses, and may run three years.

Chattel mortgages in Montana may run one year and sixty days.

BAIL.

Bail in civil action means the sureties who bind themselves either to satisfy the plaintiff, his debt and costs, or to surrender the defendant into custody, provided judgment is rendered against him in the action. In criminal cases bail means the sureties who bind themselves to have the prisoner present in court when required for trial. Ordinarily the word is used as synonymous with the word surety and practically means the same thing.

BONDS.

A bond is an obligation in writing under seal. It is a form of contract. The parties to the bond are the obligor and the obligee, the former being the one that makes the promise and the latter the person to whom the promise is made.

A simple bond is an instrument for the payment of money and generally bears interest at the rate given in the bond. Nearly all corporate and municipal bonds are of this character and contain no condition except for the payment of the amount of the bond at a certain time and place with a certain specified rate of interest.

Bonds of Public Officials conditioned for the faithful performance of certain things are of infinite variety and in common use.

Officers of Corporations are generally required to give bonds for the faithful performance of their duties.

Indemnifying Bonds are also frequently given to indemnify persons who incur liability for others.

The following is the usual form for bonds of officers of corporations. For other forms see Nichols' Business Guide.

Know All Men by these Presents that we, James Lord, John Williams and Charles Smith are held and firmly bound unto the Naperville Manufacturing Company, a corporation duly organized under the laws of the state of Illinois, in the penal sum of ten thousand (\$10,000.00) dollars good and lawful money of the United States for the payment of which, well and truly to be made for said corporation or its assigns, we bind ourselves jointly and severally by these presents.

Witness our hands and seals this 14th day of July, 1896.

The condition of the above obligation is such that whereas the above bounden has been elected president of the Naperville Manufacturing Company; Now, Therefore, if the said James Lord shall well and truly perform the duties of his said office and shall account for and pay over all moneys that shall come into his hands as such president, according

to the rules of said corporation and the order and direction of the board of directors thereof, then this obligation shall be void, otherwise to remain in full force and effect.

JAMES LORD. (SEAL.)
JOHN WILLIAMS. (SEAL.)
CHARLES SMITH. (SEAL.)

LICENSE.

License is a right of permission given by competent authority, which would be illegal without such authority. Licenses differ greatly in form and are issued by the National Government to distillers, brewers, liquor dealers of all kinds, cigar manufacturers and dealers in many other articles. They are also issued by states, by counties, and also by cities, towns and villages to peddlers, hawkers, hackmen, draymen, bus-drivers, cabmen, porters, expressmen, and itinerant merchants. They are also issued to saloonkeepers and druggists. For various forms see Nichols' Business Guide.

COPYRIGHTS.

A copyright is the exclusive right secured by the government of printing, publishing and vending copies of books, writings, engravings and drawings. The copyrights in the United States are issued by the Librarian of Congress. The following is a form of application furnished by the Librarian of Congress and should be used as a guide in applying for copyright.

Naperville, July 15, 1896.

Inclosed find \$1.00 fee for Copyright protection which is wanted, as proprietor (or author), by

Mr. John A. Hertel,

Who is a citizen of the United States,

And resident of Naperville,

State of Illinois,

For a book entitled The Business Guide, printed (or typewritten) title herewith inclosed.

This is the production of John A. Hertel,

Who is a citizen of the United States,

And resident of Naperville, Ill.

The publication is to be printed at Chicago, Cook Co., Ill.

Mail reply to John A. Hertel.

(Sign name legibly.) John A. Hertel.

(Initials of applicant are not sufficient for identification.)

For directions for securing copyrights see Nichols' Business Guide.

How to Secure a Mechanic's Lien on Property.

1. A *Lien* is a legal claim. It includes every case in which either real or personal property is charged with any debt or duty. Or in other words, it is the right to hold possession of property until some claim against it has been satisfied.

2. *Possession* is always necessary to create a lien except in case of mortgages. The lien simply extends to the right of holding the property until the debt is satisfied. The property cannot be sold without the consent of the owner, except by order of the Court.

3. *Law*: The existence of a lien does not prevent the party entitled to it from collecting the debt or claim by taking it into Court.

4. Warehouse men, carpenters, tailors, dyers, millers, printers, etc., or any person who performs labor or advances money on property or goods of another has a lien on same until all charges are paid.

5. *Hotel Keepers* have a lien upon the baggage of their guests, whom they have accommodated.

6. *Common Carriers* have a lien on goods carried for transportation charges.

7. *Agents* have a lien on goods of their principal for money advanced.

8. *How to Hold the Lien*. Never give up possession of the property until the debt is paid.

9. *Real Property*. If the debt is on a house, barn or other real property, file a lien on the whole property, and have it recorded in the County Recorder's office. The claim then partakes of the nature of a mortgage.

10. **Mechanic's Lien**.—Nearly all the states have enacted special laws to protect mechanics and material men who may furnish material and labor for the erection, construction, repair and improvement of buildings situated thereon. The method of securing these liens and enforcing them in the different states varies so widely that it is almost impossible to give such a statement as will cover all states. The following form is the one commonly in use in the State of Illinois:

FORM OF MECHANIC'S LIEN.

STATE OF ILLINOIS, } ss. In the Circuit Court, Du Page
DU PAGE COUNTY. } County.

JULIUS WARREN, }
vs. } Claim for Lien.
MARTIN SMITH. }

Julius Warren, being first duly sworn, on oath, says that he is the claimant above named, and that the attached "Exhibit A," is a just and true statement of the account due him from said Martin Smith for labor and materials furnished said Martin Smith at the times in said statement mentioned, which various amounts are due and payable to him from and after the respective dates thereof: and affiant says that the labor and materials in said statement mentioned were used in the construction and improvement of a two-story frame building situate upon the following described premises in the County of Du Page and State of Illinois, to-wit: Lot two (2), in Block three (3), of the original town of Hinsdale.

And affiant says that there is now due and owing to said Julius Warren from said Martin Smith, at whose request said material and labor was furnished as aforesaid, after allowing to him all just credits, deductions, and set-offs, the sum of \$500, for which amount said Julius Warren claims a lien upon the above described premises.

Subscribed and sworn to before me }
this 29th day of February, A. D. }
1896. } JULIUS WARREN.
JOHN SMITH, }
Notary Public. }

N. B.—The foregoing statement should be signed and sworn to before some officer authorized to administer oaths, and filed with the Clerk of the Circuit Court of the county where the real estate is situated, and a suit to enforce the same must be begun within two years from the date of the completion of the contract.

THE LAW OF WILLS.

1. All persons of sound mind and memory, of lawful age, freely exercising their own will, may dispose of their property by will. In some States a married woman cannot without consent of her husband.

2. "Lawful age," is in most States 21 years, in both male and female; in many States a female is of lawful age when 18 years old, in some States persons may dispose of personal property by will at the age of 17.

3. No exact form of words is necessary to make a will good at law.

4. The maker of a will if male, is called a *testator*; if female, *testatrix*.

5. A will has no force or effect until after testator's death.

6. The last will annuls all former wills.

7. A wife cannot be deprived of her dower, which is a life interest in one-third of her husband's real estate by will, but in some States taking any interest in her husband's property by virtue of his will, bars her dower.

8. Subsequent marriage by female, revokes will made while single in those States where husband's consent is necessary.

9. Testator's property is primarily liable for testator's debts and funeral expenses, which must be paid before any part of it can be distributed to legatees.

10. A will is good, though written with a lead pencil.

11. A person who is competent to make a will can appoint his own executor. If the person so appointed is legally competent to transact business, the Probate Court will confirm the appointment. The person so appointed is not obliged to serve.

12. It is not necessary that the witnesses should know the contents of the will. It is generally necessary that testator acknowledge to them that it is his will, sign it in their presence, or acknowledge the signature already signed to be his, and request them to sign as witnesses: they should sign as witnesses in the presence of each other, and in his presence.

13. Testator should write his own name in full. If unable to do so, his hand should be guided by another, and his name written, or a mark made near his name.

The following is the usual form where testator signs by mark.

John ^{his} X Smith.
mark.

14. An addition to an executed will is called a codicil.
15. The same essentials apply to a codicil as to a will.
16. Legacies to subscribing witnesses are generally declared void by statute.

THE FORM OF A WILL.

I, John Smith, of the Village of Naperville, County of DuPage, and State of Illinois, being of sound mind and memory, do make, publish and declare this to be my last will and testament, to-wit:

First—All my just debts and funeral expenses shall be first fully paid.

Second—I give, devise and bequeath all the rest, residue and remainder of my estate, both real and personal, to my beloved wife Susie E. Smith, to have to hold to her, my said wife, and to her heirs and assigns forever.

Third—I nominate and appoint my said wife, Susie E. Smith, to be the executor of this my last will and testament, hereby revoking all former wills by me made.

In witness whereof I have hereunto set my hand and seal this 15th day of November, A. D. 1896,

John Smith. (SEAL)

Signed, sealed, published and declared as and for his last will and testament by the above named testator, in our presence, who have, at his request, and in his presence, and in the presence of each other, signed our names as witnesses thereto.

Most States require two witnesses.	{	A. B.
Some States require three.		C. D.
		E. F.

How to Write all Kinds of Guaranties.

1. A GUARANTEE is an assurance made by a second party that a certain party will perform a certain specific act.
2. A guarantee to be binding should be for a consideration.
3. All guarantees must be in writing.
4. A mere accommodation or overture is not sufficient to hold a guarantor.
5. A guarantee must be accepted to make it a contract, and the guarantor must have notice of its acceptance within a reasonable time.

6. A guarantor, after paying the debt, has the right to substitute himself in place of the creditor.

7. Guarantees of commission merchants binding them to warrant the solvency of the purchaser of goods they sell on credit, need not be in writing.

8. The terms of the contract of guaranty are to be strictly construed.

9. In the sale of a horse the purchaser can only hold the guarantor for defects of the horse when sold.

10. In case of a cough the horse must have been heard to cough previous to the purchase. If lame, the lameness must be proved to arise from a cause that could not have occurred after the purchase.

11. A guaranty after the sale of the horse is of no effect.

How to Write a Guaranty for the Purchase of a Horse.

Osage, Kansas, June 30, 1896.

In consideration of One Hundred and Fifty Dollars, for a bay mare, I hereby guarantee her to be only six years old, sound, free from vice and quiet to ride or drive.

N. B. This guaranty embraces every cause of unsoundness that can be detected and the seller will be held for all the defects in the animal at the time of sale. This is the only safe and satisfactory way for a man to purchase a horse who is not an experienced judge of horses.

Another.

Dayton, Aug. 30, 1896.

W. Reinke, Esq.

Dear Sir:—I hereby guarantee the payment of any bill or bills of merchandise, Mr. Jno. A. Dahlem may purchase from you, the amount of this guarantee not to exceed five hundred dollars (\$500), and to expire at the end of three months from date. Respectfully yours,

Chas. Adams.

Guarantee of a Debt Already Incurred.

St. Louis, Mo., July 10, 1896.

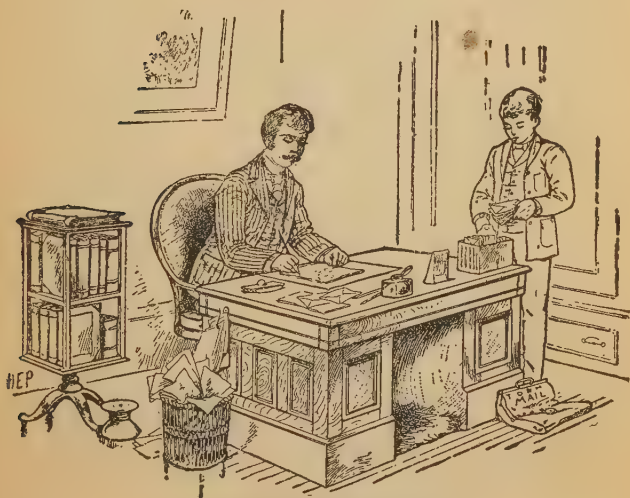
Messrs. H. E. Bechtel & Co., West Salem.

Gentlemen:—In consideration of one dollar, paid me by yourselves, the receipt of which I hereby acknowledge, I guarantee that the debt of four hundred dollars now owing to you by Ira J. Ferry, shall be paid at maturity.

Very respectfully yours,

William Metz.

THE BUSY MAN'S DIGEST OF LAWS.



DOING LEGAL BUSINESS.

PRESUMPTIONS OF LAW PERTAINING TO BUSINESS PAPERS.

1. **Law Takes Things for Granted.**—The law takes certain things for granted in connection with negotiable paper, and these things are accepted as true, unless proper evidence proves them to be false.

2. **A Valuable Consideration.**—Paper is always considered as having been given for a valuable consideration, unless the contrary can be shown.

3. **The Holder of the Paper is Considered the Owner.**—The holder of paper is regarded as the owner so long as no suspicious facts are shown in connection with his ownership.

4. **Received before Maturity.**—It is presumed that the holder received the paper before maturity until it is proved to have been transferred after it was due.

5. **Possession in the Course of Business.**—The holder is regarded as having come into possession of the paper in the course of his business, and for value, unless good evidence disproves these presumptions.

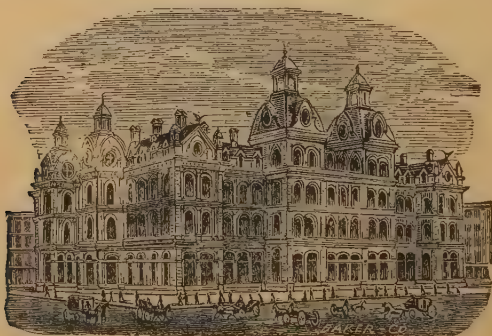
6. **Indorsements Before Maturity.**—Indorsements are supposed to have been made before maturity, unless it clearly appears otherwise.

7. **Maker and Indorser's Liability.**—The maker of a note is considered as the first debtor, and the indorsers are looked upon as conditionally liable.

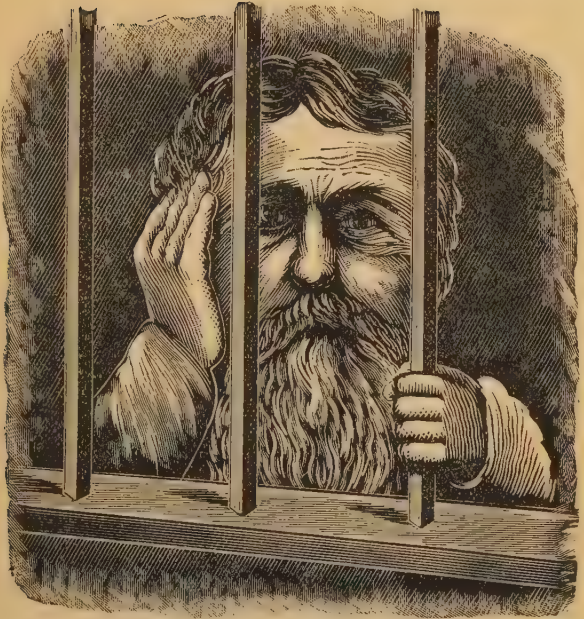
8. **Acceptor of a Draft the First Debtor.**—The acceptor of a draft is presumed to be the first debtor, and the drawer and indorsers to be only liable in the event of his failure to meet the obligation.

9. **Negotiable Paper Means Just What It Says.**—The law presumes that negotiable paper means just what it says, and evidence is not permitted to prove that it does not.

10. **Mistake in Amount.**—If a mistake is made in stating the amount of a note, or the time when the same is due, or in any other material respect, such mistake may be corrected by a proper proceeding in court, but this should be done before the instrument is sued on. If the instrument is sued on before such correction is made recovery must be upon the note as written.



NEW YORK STOCK EXCHANGE.



"The way of the transgressor is hard."

TERMS AND FACTS OF CRIMINAL LAW.

1. **THE RULE**, "Every man's house is his castle" only applies to civil cases. Any locked door of the house may be forced open to arrest a criminal.
2. **EVERY MAN** is compelled by law to obey the call of a sheriff for assistance in making an arrest.
3. **EMBEZZLEMENT** is a fraudulent appropriation to one's own use what is entrusted to one's care, and can only be charged against a clerk, servant, or agent.
4. **THE OFFENSE OF STEALING** cannot be lawfully settled by receiving back stolen property.

5. **BIGAMY** cannot be proven in law if one party to the marriage has been absent and not been heard from in five years.

6. **PETIT LARCENY** is where the value of the property stolen is less than \$15.00. Grand larceny is when the value of the property stolen exceeds \$25.00.

7. **ARSON** is the burning of an inhabited building by night.

8. **DRUNKENNESS** is not a legal excuse for crime.

9. **ASSAULT AND BATTERY** is where a person has inflicted physical violence; an assault however is only an offer or attempt at assault.

10. **MAYHEM** applies to any injury done to a limb. It formerly applied to the injury of the face, lip, tongue, eye, or ear.

11. **FELONY** is a crime punishable by imprisonment in a State prison.

12. **AN ACCIDENT** is not a crime, unless criminal carelessness can be proven.

13. **BURGLARY** is the entering of a house at night or at twilight, or in any darkness where it is difficult to distinguish a man's face.

14. **PERJURY** is false swearing wilfully done. A witness should always qualify his statements as "to the best of my belief" or "as I am informed".

15. **MURDER** in the first degree must be premeditated and malicious, or committed while the murderer is engaged in some felonious act.

16. **DUELS.** Killing a man in a duel is murder, and any person giving or accepting a challenge is guilty of a misdemeanor.

17. A **POLICE OFFICER** cannot arrest a person without a warrant, unless he has personal knowledge of the offense.



When to Sign Your Name in Full.

When you sign deeds, mortgages, wills, contracts involving land or other instruments of a permanent character, always write your name in full. Never use your ordinary business initials for signatures of this kind. In affixing your signature to a note or receipt, it is always better to write your first name out in full. There are sometimes several individuals in a community with the same initials and name, but when the first name is written out in full the names are different and consequently in mail matters, as well as in other things, much confusion is avoided. Therefore, in order to avoid possible errors in public records and confusion of titles, it is always better to sign your name in full. For instance, instead of writing H. A. Smith, write Henry A. Smith.

How a Married Woman Should Sign Her Name.

A married woman doing business for herself and handling her own individual money, had better use her own name instead of her husband's. For example, Mrs. Clark should sign Lucy A. Clark and not Mrs. Henry Clark.

A married woman is always at a disadvantage if she signs at one time her own name and then at another her husband's

name, and it always results in more or less confusion. If she prefers to use her own name, she should always write it that way and not write L. A. Clark, Lucy Clark, or Mrs. Henry Clark, but always write it, Lucy A. Clark.

A married woman in writing a letter to a stranger should always prefix "Mrs." to her name.



How to Secure the Signature of a Person That Cannot Write.

1. The signature of a person who cannot write should always be witnessed. Have the person who witnesses the signature sign his name at the left.

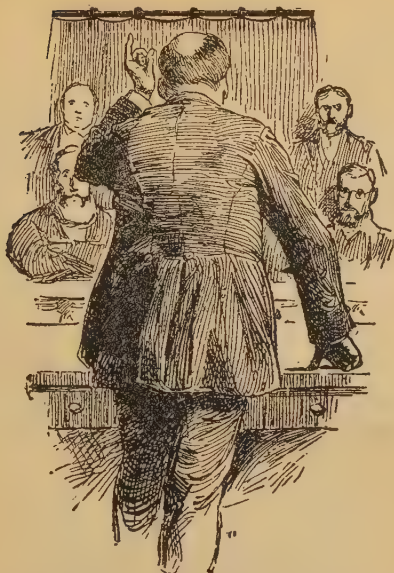
2. Use the following form :

his
Frederick X Miller.
mark

Witness, Mattie Smith.

This signature will apply to all forms of business papers, such as notes, receipts, deeds, leases, etc.

his
Henry X Moore
mark



ARGUING THE CASE OF A LOST NOTE.

THE LAW GOVERNING LOST NOTES OR BILLS.

1. **The Old Law.**—Formerly no action could be brought on a negotiable note or bill which was lost, if at the time it was lost it was transferable by delivery only, or had been endorsed and transferred before or after maturity.

2. **Bond.**—If a party should refuse to pay a note or bill which has been lost, he may be sued and compelled to pay it, but the party collecting it may be required to give a bond, so that the note in question may never appear for payment.

3. **Proven.**—Of course it is necessary to establish by sufficient proof, that the note for a certain amount by a certain party or parties had been given and up to date not paid. The maker of the note can compel the holder of the note to give evidence of the unsatisfied debt covered by the lost note.

4. **Payable to Bearer.**—If payment of a lost note or bill is made without notice of loss, to the finder, the paper being due and payable to the bearer, the payment is good. And if it comes into the hands of an innocent purchaser, before due, he may collect the full amount of note, and the loser of the note cannot recover it.

5. **A Part of a Bill or Note.**—Where part of the bill or note has been torn off and lost by accident, that fact can be shown by presenting the remaining part as evidence of the debt and showing loss or destruction of the balance.

6. **Caution.**—If a note or due-bill has been lost, it is best to take disinterested parties and interview the maker and secure his open acknowledgment of the amount of said note or bill before letting him know the bill or note has been lost or burned, for it may often be difficult to secure a sufficient amount of evidence to establish the debt.

7. **Informal Notes.**—Informal notes are regarded with suspicion, although they may be collectable. "I. O. U. ten dollars," "forty weeks after demand," "I promise NEVER to pay," etc., are held to mean what the circumstances of the case may indicate was intended. The word "never" was held to be surplusage and the note good.

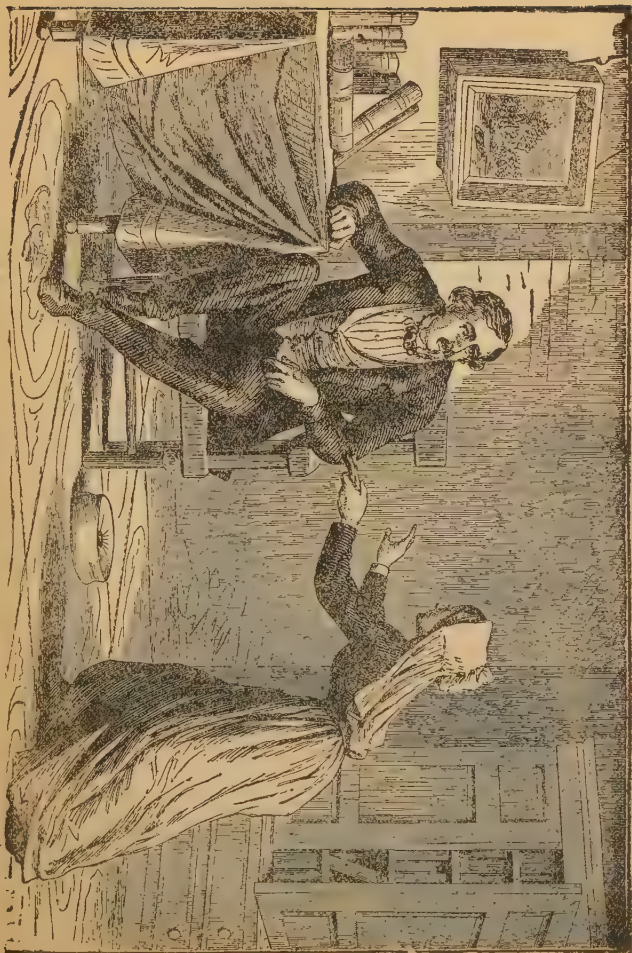
THE LAW GOVERNING FORGED PAPER.

1. **Forgery.**—Any material alteration made on commercial paper with intent to defraud is forgery.

2. **A Forged Instrument.**—A forged instrument is not commercial paper, for it represents neither a contract nor property, and no rights whatever are gained by its possession or transfer. The paper is simply worthless except as evidence against the forger.

3. **No Responsibility.**—The person whose name is forged cannot be made responsible. The act is not his, and one certainly should not be held responsible for another's acts which are entirely unauthorized and without notice.

4. **The Purchaser of Forged Paper.**—It makes no difference how careful or honest one is who takes forged paper; no matter what the consideration may be, the paper itself is worthless, and one who sells it to another in reality sells nothing. The one who buys forged paper however, may recover what he paid for it from the one from whom he bought it, because it was money paid under mistake. The person who took the paper from the forger must always



"MY BOY IS TO BE HUNG—CAN'T YOU SAVE HIM?"

From Forgers to Murder

bear the loss, unless he can recover the money from the person who committed the forgery.

5. **Raising the Amount.**—Paper is sometimes forged by erasing the amount named in the genuine paper and putting in a larger amount. The paper is then perfectly good for the original sum, but wholly worthless as to the amount raised. Example: If a check is drawn for \$5.00 and it is raised to \$50.00, the signer of the check will only be held for \$5.00, and whoever takes the check for \$50.00 will lose the \$45.00, unless he can secure it from the forger.

6. **Caution.**—Never buy a paper from a stranger, unless he can show evidence of legitimate business transaction with the person or persons whose papers he desires to transfer.

LEGAL GIFTS.

1. **Who Can Make Gifts?**—Any person legally competent to transact business, may give whatever he, or she owns, to any other person. A gift by a minor, a married woman, an insane person, or a person under guardianship, or under duress, would be void, or voidable, according to the circumstances.

2. **Delivery of Gift Necessary.**—A gift must be consummated, that is, the thing given must be delivered before any legal right rests in the grantee. A promise to give is not binding, as it is supported by no consideration. Delivery may be actual or constructive.

3. **Cannot Be Revoked by Donor.**—A gift made perfect by delivery, cannot be revoked by the donor; but if it prejudices the rights of existing creditors, it is void as to them. It is not, however, void as to future creditors, unless made under actual or expective insolvency, or with a fraudulent purpose.

4. **Gifts Because of Expected Death Revokable.**—Gifts because of expected death, are revokable by the donor if life is continued; even after delivery and acceptance. Such gifts are held to have been made because death was supposed to be at hand; and if it does not ensue, the gift is defeated, as the death, which was the cause of the gift, has not taken place.

THE LAW ON TRADING.

OFFER AND ACCEPTANCE.

1. **Jesting.**—An offer made in a jest, though accepted, is not binding. The law presumes that an offer must be made with good intention.

2. **An Unconditional Acceptance.**—If an offer has been made, the acceptance must be without any conditions attached. Any acceptance upon the terms varying in the slightest degree from things proposed, is not binding until all the conditions are accepted.

3. **A Good Acceptance.**—An acceptance, to be good, must be such as to conclude a contract between the parties; and to do this it must, in every respect, meet and correspond with the offer, neither falling within nor going beyond the terms proposed, but exactly meeting them at all points and closing them just as they stand.

4. **An Offer.**—An offer may be withdrawn any time before it is accepted, but if no time is specified, then by the expiration of a reasonable length of time for acceptance the offer thereafter cannot be legally accepted. A limitation of time for which an offer is to run is an equivalent to the withdrawal of the offer at the end of the time named. Where parties are so situated that it is necessary to communicate by letter or telegram, the contract is complete the moment the acceptance is dispatched or the letter put into the post office, provided this is done within a reasonable length of time, or before notice of withdrawal of the offer is received. Any one receiving an offer by mail or telegraph, is entitled to a reasonable time in which to accept or reject it.

5. **A Notice of Reward for Information.**—The offer by way of advertisement of a reward for information leading to the restoration of property or the conviction of a criminal, addressed to the public at large, becomes obligatory, if not previously revoked, as soon as an individual, with a view to the reward, renders the specified service, but not before. To entitle one to the reward, he must have had notice of the offer at the time he rendered the service; for no one can assent to that which he has not heard of.

EXEMPTION LAWS.

The Amount of Property That Cannot be Taken for Debts in Different States as we Find It September, 1900.

1. Exemption Laws are for the purpose of protecting those who are unable to pay their debts without causing distress to themselves and their families.
2. Property covered by mortgage cannot be held.
3. A safe estimate of the property of the person desiring credit should be made before the credit is given.

STATES.	Value of Personal Property.		Value of Homestead.	Exceptions and Explanations.
	Married.	Single.	Married.	
Alabama	\$1,000	\$1,000	\$2,000	or 160 acres of land.
Alaska Territory		175		A householder \$50 for each member of family, \$400 for tools and stock.
Arizona.....	500	none.	2,500	Earnings for 30 days prior to levy.
Arkansas.....	500	200	2,500	
California (a).....		200	5,000	Must be designated as such in writing and recorded.
Colorado (a).....			2,000	Word "Homestead" must be written on record of deed.
Connecticut (a).....			1,000	
Delaware (b).....			none	
Dist. of Columbia (a).....	900		none	
Florida.....	1,000			160 acres of land in country, ½ acre in city.
Georgia	1,600*			
Idaho	100 to 500		5,000	Single, \$1,000. (e) Homestead must be designated by a writing executed and recorded like a deed.
Illinois.....	400	100	1,000	
Indian Territory.....	500	200	2,500	
Indiana.....	600†			No homestead except as before stated.
Iowa (c).....				40 acres in country, ½ acre in city. No limit as to value.
Kansas.....	800			160 acres in country, 1 acre in city.
Kentucky (c).....			1,000	
Louisiana.....	2,000			Homestead and personal property. Written declaration must be recorded.
Maine (c).....			500	Certificate must be filed.
Maryland (c).....	100		none	
Massachusetts (c)...	450		800	
Michigan.....	500			40 acres in country, \$1,500 in city.

STATES.	Value of Personal Property.		Value of Homestead.	Exceptions and Explanations.
	Married.	Single.	Married.	
Minnesota (c).....	\$ 500	\$.....	\$.....	80 acres in country, $\frac{1}{2}$ to 1 acre in city, varying with size of city.
Mississippi (c).....	250	250	2,000	Or \$3,000 if statement is recorded.
Missouri (c).....	300	.....	.....	From \$1,500 to \$3,000, according to size of city.
Montana (c).....	.....	.....	2,500	And not to exceed 160 acres of farm land or $\frac{1}{4}$ acre in city.
Nebraska (f).....	500	.....	2,000	.....
Nevada (d).....	from 100 to 500	.....	5,000	Written declaration must be recorded.
New Hampshire (c).....	.....	.....	500	Also \$500 homestead for single man (e).
New Jersey.....	200	.....	1,000	.....
New Mexico (c)(f).....	.....	.....	1,000	.....
New York.....	250	.....	1,000	.....
North Carolina.....	500	.....	1,000	.....
North Dakota.....	1,500	.....	.....	160 acres in country, or 2 acres in city not exceeding \$5,000 in value.
Ohio (c).....	.....	.....	1,000	.....
Oklahoma (c).....	.....	.....	.....	160 acres in country, 1 acre in city.
Oregon (c).....	.....	.....	1,500	.....
Pennsylvania.....	300†	.....	.....	.....
Rhode Island.....	200	.....	none.	.....
South Carolina.....	500	.....	1,000	.....
South Dakota.....	750	300	.....	160 acres in country, 2 acres in town, limit \$5,000.
Tennessee (c).....	.....	.....	1,000	.....
Texas(c).....	500	.....	.....	200 acres in country, \$5,000 in city.
Utah (c).....	.....	.....	.....	\$1,500 for debtor, \$500 for wife, \$250 all members of family.
Vermont(a).....	.....	.....	500	.....
Virginia (c).....	.....	.....	2,000	.....
Washington.....	.....	.....	2,000	Varies from \$500 to \$2,000 according to trade or profession.
West Virginia.....	200	.....	1,000	.....
Wisconsin (c).....	.....	.....	.....	40 acres in country, $\frac{1}{4}$ acre in city.
Wyoming.....	800	.....	1,500	.....

(a) Articles of specific property too numerous to mention, no value fixed.
 (b) Exemptions vary in different counties. (*) In either personality, realty or both. (†) In personality or realty. (c) Articles of specific property too numerous to mention, varying in amount in different trades and professions.
 (d) Articles of specific property, ranging in value from \$100 to \$500. (‡) Real or personal. (e) A single man can claim homestead only in Idaho and New Hampshire. (f) If no homestead is taken, \$500 in personality is exempt, and the exemption laws in New Mexico are the same as in Nebraska.

HOMESTEADS UNDER UNITED STATES LAND LAWS.

1. Any citizen of the United States, the head of a family of the age of twenty-one years and over, or a person who has filed his declaration of intention to become such citizen, may secure a homestead upon the unappropriated public lands belonging to the government which are subject to pre-emption; 160 acres if such lands are subject to pre-emption at \$1.25 per acre, and 80 acres of land which are subject to pre-emption at \$2.50 per acre; such lands to be of legal subdivision of the public lands and can be located only after they are surveyed.

2. The person desiring to secure such homestead must make an affidavit before the register of the land office in which the land upon which he desires to make his entry is located, that he is the head of a family, and is twenty-one years or more of age, or has performed service in the army or navy of the United States; that his application is made for his own exclusive use and benefit, and that his entry is for the purpose of actual settlement and cultivation, and not, either directly or indirectly, for the use and benefit of any other person, persons or corporation. Upon filing such affidavit with the register on payment of \$5 for 80 acres and \$10 for 160 acres he shall be allowed to enter the amount of land specified.

3. No certificate or patent can be issued until the expiration of five years from the date of such entry, and within two years after the expiration of said five years the party making the application must prove by two disinterested witnesses before the register of his land office that he has actually occupied and cultivated and improved said land as a homestead for the space of five years prior to the making of such application. Upon making such proof to the satisfaction of the register he shall be entitled to his certificate and patent.

4. The homestead right may be changed into a pre-emption and the land proposed to be homesteaded paid for at the regular government rate if the homesteader so desires.

5. In case of the death of any person who would be entitled to a homestead, as hereinbefore stated, before he is able to prove up the same, his wife and children, or in case he leaves no wife, or she remarries, then his children may prove up on the land and secure the title thereto.

6. Soldiers and officers who served in the army of the United States during the Rebellion for 90 days and who were honorably discharged are entitled to have the time of such service deducted from the time fixed by the statute upon which they must live upon the land.

7. Homestead lands are not liable for debts contracted prior to the issuing of the patent therefor.

8. Only one quarter section can be entered as a homestead.

9. Persons who have entered less than 160 acres are entitled to enter enough more to make up the full limit.

10. A widow, if unmarried, or minor children by their guardian, may enter homesteads.

11. Persons may be absent from their homestead claims not exceeding one year, if such absence is occasioned by the failure or destruction of crops.

12. The commissioner of the general land office may, for climatic reasons, in his discretion, allow the settler twelve months from the date of filing his application to commence his residence on his homestead.

13. At the end of the third year of residence thereon, if the homesteader shall have under cultivation for two years one acre of timber, the trees whereof are not more than twelve feet apart each way, and in good thrifty condition, for each and every sixteen acres of such homestead, may, upon due proof of such facts by two credible witnesses, receive a patent for such homestead.

14. Six months' absence from the homestead claim unexplained, forfeits the claim.

15. Persons becoming insane before securing patents to their homesteads can have the necessary proofs made by their legally appointed guardians or conservators.

STATUTES OF LIMITATIONS OR THE TIME IN WHICH DEBTS ARE OUTLAWED IN THE DIFFERENT STATES AND BRITISH PROVINCES.

Corrected up to Date, May, 1901.

1. All of our States have statutes of limitation providing different periods of time, varying from one to twenty years, within which actions specified in the statutes must be brought.



"THE MAN WHO IS IN DEBT CARRIES A WORLD OF TROUBLE."—BURKE.

2. In accounts it generally begins from the purchase of the last item, and is renewed by every partial payment.

3. In case the debtor makes a written acknowledgment in a note, or papers of that character, the claim is renewed.

STATES AND TERRITORIES.	Contracts in Writing.	Sealed Instruments.	Judgments.	Open Accounts.	STATES AND TERRITORIES.	Contracts in Writing.	Sealed Instruments.	Judgments.	Open Accounts.
	Yrs.	Yrs.	Yrs.	Yrs.		Yrs.	Yrs.	Yrs.	Yrs.
Alabama	6	10	20	3	Nevada	6	6	6	4
Alaska	6	10	10	6	New Hampshire ..	6	20	20	6
Arkansas	5	5	10	3	New Jersey	6	16	20	6
Arizona	5	5	5	4	New Mexico	6	6	7	4
California	4	4	5	2	New York	6	20	20	6
Colorado	6	6	6	6	North Carolina ..	3	10	10	3
Connecticut	6	17	17	6	North Dakota ..	6	6	10	6
Delaware	6	20	20	3	Ohio	15	15	15	6
Dist. of Columbia.	3	12	12	3	Oklahoma	5	5	5	3
Florida	5	20	20	4	Oregon	6	10	10	6
Georgia	6	20	10	4	Pennsylvania ..	6	20	20	6
Idaho	5	5	6	4	Rhode Island ..	6	20	20	6
Illinois	10	10	20	5	South Carolina ..	6	20	20	6
Indiana	10	20	20	6	South Dakota ..	6	20	20	6
Iowa	10	10	20	5	Tennessee	6	10	10	6
Kansas	5	5	5	3	Texas	4	4	10	4
Kentucky	15	15	15	5	Utah	6	6	8	4
Louisiana	10	10	10	3	Vermont	6	8	8	6
Maine	6	20	20	6	Virginia	5	10	20	2
Maryland	3	12	12	3	Washington	6	6	6	3
Massachusetts ..	6	20	20	6	W. Virginia	5	10	10	5
Michigan	6	10	10	6	Wisconsin	6	20	20	6
Minnesota	6	6	10	6	Wyoming	5	5	10	8*
Mississippi	6	6	7	3					
Missouri	10	10	10	5	Canada	6	20	20	6
Montana	8	8	10	3	New Brunswick ..	6	20	20	6
Nebraska	5	5	5	4	Nova Scotia	6	20	20	6

* Except as to foreign claims, then 2 years.



FOREIGN POSTAGE.

The rates of postage to all foreign countries and colonies (except Canada and Mexico) are as follows:

1. **ON LETTERS.**—Five cents for each half ounce or fraction thereof.

On newspapers, books, pamphlets, photographs, engravings, and similar printed matter one cent for each two ounces or fraction thereof.

2. **CANADA AND MEXICO.** Letters, newspapers and printed matter are now carried to Canada and Mexico at the same rates as in the United States.

3. **LIMITS OF SIZE.** Samples of merchandise to all postal union countries are admissible to 12 inches in length, 8 inches in width and 4 inches in depth. If they are in the form of a roll 12 inches in length and 6 inches in diameter.

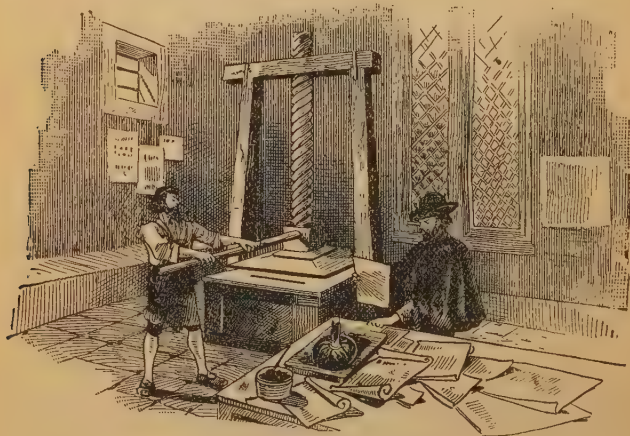
4. **LIMITS OF WEIGHT.** The general limit of weight is 8¾ ounces; but by special agreement between the United States and Great Britain, France, Belgium, Switzerland, Argentine Republic, Italy, Hawaiian Republic, Austria, Egypt, and the British Colonies except India, Canada and Australia. Samples of merchandise are admissible in the mails up to 12 ounces in weight.

5. **PARCELS POST.** Unsealed packages of mailable merchandise may be sent by parcel posts to Jamaica, Barbadoes, the Bahamas, British Honduras, Mexico, Hawaiian Republic, Leeward Islands, Costa Rica, Colombia, Salvador, British Guiana, Danish West Indies, Windward Islands and Newfoundland at the following rate: For every pound or additional fraction thereof 12 cents. The maximum weight is 11 pounds.

6. **PREPAID POSTAGE.** Foreign postage should always be prepaid in stamps of the country from which they are sent. If not prepaid it is chargeable with double the amount.

WORKING ON HOLIDAYS.

There is no law which says a farm hand or any other laborer shall not work on holidays. Generally the laborer should work on such days if required to do so, or forfeit his right to pay. In many localities it is customary not to work on some of the principal days, such as Christmas, Thanksgiving Day in the East, and the Fourth of July, and still to pay the men their regular wages. If this custom is common and well known in any place, it will probably govern, so that pay can be collected although the work is not done. Of course, ordinary farm chores should be done, as on Sundays, at least.



THE FIRST PRINTING PRESS.

THE LAW OF NEWSPAPER SUBSCRIPTIONS.

1. There is no postal law regulating the transactions between publishers and subscribers. The ordinary rules of contract govern all relations between the parties concerned, and the postoffice has no part except to deliver the article, or return it when ordered to do so.

2. If the publisher of any paper or periodical sends his paper or magazine, the postmaster must deliver it, if the person to whom it is sent will take it. If he will not take it, the postmaster must notify the publisher.

3. The publisher must collect his subscription the same as any other debt.

4. If a man subscribes for a paper or periodical for one year, he cannot stop his paper at any time during that year, but at the end of the year he can stop his paper, whether he has paid for it or not.

5. If at the end of the year the publisher continues to send his paper and the subscriber to receive it, the sending is the offer of another year's subscription at the same price, and the taking of the paper out of the postoffice is an acceptance.

6. If a subscriber has by express or implied agreement become liable for another year's subscription, he cannot during and before the expiration of that year stop his paper, even by paying up all he owes to the publisher.

7. If the publisher advertises terms of subscription, all parties taking the paper under these conditions will be held according to the conditions.

RESPONSIBILITY IN RUNAWAY HORSES AND TEAMS.

1. If a horse naturally quiet to ride and drive is frightened by a railroad train, steam thrasher, or other causes, not under the control of the rider or driver, does any damage, or injures any person or persons, the owner is not responsible.

2. If horses are known to be vicious, or sustain a runaway reputation, break loose or run away with their driver, or injure any person or persons, the owner is responsible, unless it can be shown that the horses were frightened by some obstacle which would naturally frighten a gentle or ordinarily quiet horse.

3. A person owning or driving a team must always use proper caution and ordinary diligence, in order to escape any damages that may be done in case his team should break loose and run away.

4. If a person enters the barn or pasture of another, and is injured by a vicious horse or bull, it must be shown that the owner used all reasonable means in the care of his animals for the safety of his help and neighbors.

5. If a person enters upon the land of another, and is injured, he must show good cause for entering upon said land, and also prove ordinary caution, in going where cattle and horses were kept.

TRESPASSING ANIMALS.

If cattle, or horses, or sheep, or hogs, or chickens, or dogs, or any other animals trespass upon the land of a neighbor, they cannot be injured or killed by the owner of the land upon which the trespass is committed, no matter how often repeated. The law regulates these matters by damages, and every innocent person is protected, and generally fully compensated for all damages caused by trespassing animals.

Many States and local authorities have laws by which trespassing animals can be taken up, and either held by the party upon whose land the trespassing is committed or placed in a public corral or pound. They are kept there at the expense of the owner, and damages or fines or both must be paid before the animals can be taken or removed by the owner.

FENCE LAWS.

1. Fence laws are generally regulated by State statutes or local authorities.

2. A few general laws are commonly held in all the States.

3. Legal Fence.—First find out from the state statute or local law what constitutes a legal fence. A legal fence is generally a four foot fence with sufficient boards or wire, or both, to turn cattle and sheep.

4. If cattle or horses break through fences in any way defective or neglected, the owner of the cattle or horses doing the damage is not responsible, if it was not his fence, or the injury brought about through his neglect.

5. Every man is compelled to look after his own part of the fence and keep it in good repair, and look out and restrain his own animals in trespassing upon the lands of another.

6. Owners of adjoining cultivated lands are required to make division fences in common.

7. In erecting a division fence according to law, half of it may be placed upon the adjoining land. No man has a right to build a fence on another man's land, unless there is a law that will permit him to do so.

8. Fences are fixtures that pass with the sale of land. Posts or boards that have been used as fences on a farm, though when the farm is sold are piled up, and not used at the time for fencing purposes, cannot be removed as personal property.

LAWS OF THE PUBLIC ROAD.

1. Public Roads are those which are laid out and supported by officers entrusted with that power. Their care and control are regulated by the statutes of the different States, and in detail will not be referred to here, as they can be easily looked up by those who desire information so entirely local.

2. Ownership.—The soil and the land remains in the owner, who may put the land to any use, and derive from it any profit, not inconsistent with the rights of the public. If the road is at any time discontinued, the land reverts back to the owner.

3. Liability.—The repairing of highways is usually imposed upon towns, and they are made liable by statute for all damages, against persons or estates, from injuries received or happening in consequence of a neglect of duty on the part of the officers having the same in charge.

4. Laws of the Road.—Persons traveling with carriages or vehicles of transportation, meeting on any public way, are required to turn their carriages or wagons to the right of the center of the road, so far as to permit such carriages or wagons to pass without interruption.

5. Runaways.—The owner of a runaway horse or horses if negligent, or not exercising due care, is responsible for all damages that may occur.

6. Any unreasonable occupation of the public way, whether arising out of a refusal to turn out and allow a more rapid vehicle to pass, or from an unjustifiable occupancy of such a part of the road as to prevent others from passing, will render the party so trespassing liable for damages to any suffering injuries therefrom. A loaded vehicle must turn out, and allow those to pass who may reasonably and lawfully travel faster.

Petition for Laying Out a Road.

To the Commissioners of the Town of Lisle,
County of Du Page, and State of Indiana.

Your petitioners of the town of Lisle would respectfully represent that the public convenience and wants require that a road and highway should be laid and constructed, beginning at the Northwest corner of J. D. Wild's farm, in the town of Lisle, and leading in a direct line South to the town of Bennington.

Your petitioners would therefore ask that your honors would view the premises, and locate and construct said road and highway, according to the laws in such cases made and provided, as shown by the Statutes of the State.

(Signatures.)

(Signatures.)

TRANSPORTATION OF MAIL.

Post Office.—The name Post Office originated in the posts placed at intervals along the roads of the Roman Empire where couriers were kept ready to bear dispatches and intelligence.

Early Times.—The first letter post was established in the 13th century. In early times both public and private letters were sent by messengers. Before 1639 postal facilities in the colonies were simply those afforded by personal accommodation.

Monthly Mail.—In 1672, the government of New York established a monthly mail to Boston; later this, as well as mails to other points, were carried weekly.

First Post Master General.—Benjamin Franklin was appointed First American Postmaster General, July 26th, 1775.

Cost.—The entire cost of the Post Office Department from 1783 to 1833 was \$34,700,000; revenue \$36,400,000; up to 1851 the department was self-sustaining; since then there has been an annual deficit, except one year during the Civil war. At present it costs about Fifty Millions of dollars annually to transport the mails of our nation.

Postal Union.—Under the regulation of the universal Postal Union a letter may now be carried to almost any place in the civilized world for five cents. Every five years representatives of the different nations meet in the "Universal Postal Congress," and discuss and agree upon improvements in the system.

TRANSPORTATION OF PASSENGERS.

It is stated that in 1797, when the first extra session of Congress was called, one member from the west did not arrive in Philadelphia—then the Nation's capital—until after Congress had adjourned. Comparing the modes of travel of colonial days with the great speed of the elegantly furnished palace car of today, there can be no denial that we are a fast people.

Rates.—The usual local passenger rates are $2\frac{1}{2}$ and 3 cents a mile. Through tickets to principal terminal points are lower. Mileage books good for 1,000 miles are sold for two cents a mile. These can legally be used only by the purchaser, but deception is often practiced whereby different persons use the same ticket. In most of our large cities ticket scalpers are found who buy and sell tickets at reduced rates. Some states have laws prohibiting these scalpers from doing business.



THE RESPONSIBILITY OF OWNING A DOG.

1. Dogs must be kept upon the owners' premises, unless accompanied by the owner or some member of the family.

2. If a Dog annoys travelers upon the public highway by scaring horses and frightening children, the owner is responsible for damages.

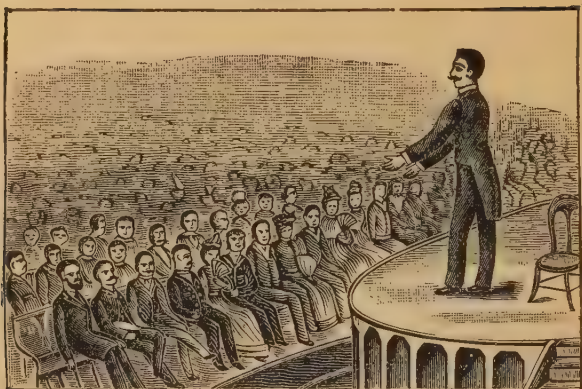
3. The owner of a Dog is responsible for damages caused by his dog trespassing upon the public highway in running after teams or doing other damages.

4. If a Dog not accompanied by its owner annoys travelers upon the public highway, he may be killed, without any claim of damages on the part of the owner of the dog. When a dog becomes a nuisance he may be killed anywhere except on the owner's premises.

5. If a Dog kills sheep or destroys or injures any other domestic animals, the owner is responsible for damages.

6. Every owner of a savage and dangerous dog must keep him properly chained or otherwise secured that no injury may be done to others.

7. If a person on a social or business errand is bitten or otherwise injured by a savage dog on the premises of the owner, the owner is responsible. Dangerous animals are not permitted to run at large, even on the owner's own premises, unless he has sufficient safeguards to protect his neighbors against injury.



**A Complete Set of Parliamentary Rules and Usages
for Public Meetings, Political Gatherings
and Debating Societies.**

OVER THREE HUNDRED POINTS OF ORDER.

Trace up each reference at the right, and then look up the corresponding marks on opposite page, which will give the full information desired.

Forms in which questions may be put.....	13 14 15 16 17 18 19
Questions of precedence of questions.....	5 6 7 8 9 10 12
Motion to withdraw a motion.....	1 a * A a II x
To take up a question out of its proper order.....	1 a * A b II x
Motion to take from the table.....	1 a * C b I x
Motion to suspend the rules.....	3 a † B a II x
To substitute in the nature of an amendment.....	3 a † A a II x
Motion to make subject a special order.....	3 a † A b II x
Question whether subject shall be discussed.	1 a * A b III y
Motion that committee do not rise.....	1 a * B a II x
Motion to refer a question.....	3 b † B a II x
Motion to reconsider an undebatable question.....	1 a * B a II z
Motion to reconsider a debatable question.....	3 b * B a II x
Reading papers.....	1 a * A a II x
Questions of privilege	3 a † A a II x
Questions touching priority of business.....	1 a † A a II x
Motion for previous question.....	1 a * A b II x
Motion to postpone indefinitely....	3 b * A a II x
Motion to postpone to a definite time.....	4 a † A a II x

Motion for the orders of the day.....	1 a * A a III y
Objection to consideration of question.....	1 a * A b III y
Motion to limit debate on question.....	1 a † A b II x
Motion to lay on the table.....	1 a * C a II x
Leave to continue speaking after indecorum.....	1 a * A a II x
Motion to extend limits of debate on question.....	1 a † A a II x
Motion to commit.....	3 b † A a II x
Motion to close debate on question.....	1 a † A b II x
Call to order.....	1 a * A a III y
Motion to appeal from Speaker's decision generally.....	3 a * A a II y
Motion to appeal from Speaker's decision <i>re</i> indecorum.....	1 a † A a II y
Motion to amend the rules.....	3 a † A b II x
Motion to amend an amendment	3 a * A a II x
Motion to amend	3 a † A a II x
Motion to determine time to which to adjourn.....	2 a † A a II x
Motion to adjourn.....	1 a * B a II x

1. Question undebatable; sometimes remarks tacitly allowed.

2. Undebatable if another question is before the assembly.

3. Debatable question.

4. Limited debate only on propriety of postponement.

a. Does not allow reference to main question.

b. Opens the main question to debate.

*. Cannot be amended.

†. May be amended.

A. Can be reconsidered.

B. Cannot be reconsidered.

C. An affirmative vote on this question cannot be reconsidered.

b. Requires two-third vote, unless special rules have been enacted.

a. Simple majority suffices to determine the question.

II. Motion must be seconded.

III. Does not require to be seconded.

x. Not in order when another has the floor.

y. Always in order though another may have the floor.

z. May be moved and entered on the record when another has the floor, but the business then before the assembly may not be put aside. The motion must be made by one who voted with the prevailing side, and on the same day the original vote was taken.

5. Fixing the time to which an adjournment may be made; ranks first.

6. To adjourn without limitation; second.

7. Motion for the Orders of the Day; third.

8. Motion to lay on the table; fourth.

9. Motion for the previous question; fifth.

10. Motion to postpone definitely; sixth.

12. Motion to commit; seventh.

13. Motion to amend; eighth.

14. Motion to postpone indefinitely; ninth.

15. On motion to strike out words, "Shall the words stand part of the motion?" unless a majority sustains the words they are struck out.

16. On motion for previous question the form to be observed is: "Shall the main question be now put?" This, if carried, ends debate.

17. On an appeal from the chair's decision, "Shall the decision be sustained as the ruling of the house?" The chair is generally sustained.

18. On motion for Orders of the Day, "Will the house now proceed to the Orders of the day?" This, if carried, supersedes intervening motions.

19. When an objection is raised to considering question, "Shall the question be considered?" objection may be made by any member before debate has commenced, but not subsequently.

LEGAL HOLIDAYS IN THE UNITED STATES.

Showing at a glance the number of holidays of each state,
as well as the number of states observing each holiday.

(The letters on the line with each state indicate that the days designated by the same letters at foot of page are observed as holidays.)

Alabama	A		C	E	G	J	L	M	P				V	W	X
Arizona	A			E			K	M					W	W	X
Arkansas				E			K	M					W	W	X
+California	A			E			K	M	P	R			V	W	X
Colorado	A			E			K	M	P	Q			V	W	X
Connecticut	A			E			K	M	P		S		W	W	X
Delaware	A			E			K	M	P				W	W	X
+Florida	A		C	E		J	L	M	P				W	W	X
Georgia	A		C	E		J		M	P				W	W	X
(5)Idaho	A			E				M	P	Q			V	W	X
Illinois	A		D	E			K	M	P				W	W	X
Indiana	A			E			K	M	P				V	W	X
Iowa	A						K	M	P				V	W	X
Kansas	A			E			K	M	P	Q			V	W	X
Kentucky	A			E			K	M					W	W	X
+Louisiana	A	B		E	G			M	P			U	W	W	X
Maine	A			E			K	M	P				W	W	X
Maryland	A			E	G		K	M	P			V	W	W	X
Massachusetts				E	H		K	M	P				W	W	X
Michigan	A			E			K	M	P				W	W	X
Minnesota	A		D	E			K	M	P	Q			V	W	X
Mississippi								M					W	W	X
Missouri	A			E			K	M	P				V	W	X
(2)Montana	A			E			K	M	P	Q			V	W	X
(1)Nebraska	A			E			K	M	P	Q			V	W	X
Nevada	A			E			K	M			T		V	W	X
N. Hampshire				E			K	M	P				V	W	X
New Jersey	A		D	E			K	M	P				V	W	X
New Mexico	A			E			K	M	P				V	W	X
New York	A		D	E		J	K	M	P				V	W	X
*N. Carolina	A	C		E				M					W	W	X
North Dakota	A			E			K	M		Q			V	W	X
Ohio	A			E			K	M	P				V	W	X
Oregon	A			E			K	M	P				V	W	X
Pennsylvania	A			E	G		K	M	P				V	W	X
(4)Rh'de Isl'nd				E			K	M	P	Q			V	W	X
S. Carolina	A			E				M	P				V	W	X
South Dakota	A			E				M	P				V	W	X
Tennessee	A			E	G		K	M	P				V	W	X
Texas(6)	A			E	F	I		M	P	Q			V	W	X
(3)Utah	A			E			K	M	N	Q			V	W	X
Vermont	A			E			K	M	O				W	W	X
Virginia	A	C		E				M	P				V	W	X
Washington	A		D	E			K	M	P				V	W	X
West Virginia	A			E				M					V	W	X
Wisconsin	A			E			K	M		Q			V	W	X
Wyoming	A			E			K	M	P	Q			V	W	X

Jan. 1, A
Jan. 8, B
Jan. 19, C
Feb. 12, D
Feb. 22, E
March 2, F
Good Fri., G
April 19, H
April 21, I
April 28, J
May 30, K
June 3, L
July 4, M
July 24, N
Aug. 16, O
Lab. Day(7) P
Arbor Day, Q
Sept. 9, R
Oct. 15, S
Oct. 31, T
Nov. 1, U
Gen'l Elec., V
Th'ns'g., W
Dec. 25, X

Labor Day and Arbor Day have different days in different states.

PRACTICAL INFORMATION FOR BUSY MEN.

TRUSTS.

What Trusts are, and How they are Organized.

The name is certainly innocent, but the abuses and wrongs growing out of it are alarming.

2. It is organized or brought about in the following way. A majority of those dealing in, or manufacturing special or certain articles unite their capital and form a corporation, with a capital of two or three times that actually invested in the business. Thus the capital stock of each individual or corporate member of the trust is doubled without the investment of an additional dollar. When this is done, the corporation is so managed that it pays on this doubled or trebled capital stock dividends as great or greater than the earnings before secured separately.

3. The "Trust" has absolute command of the product which it is formed to control, so that it is able to name its price and profits.

4. If the supply is too large, certain of the mills or factories or refineries in the association are closed, and the owners can make no objections because they are partners in the scheme, and are sure of their dividends on two or three times the capital they had invested in their former business. Reducing the production only makes their dividends more certain.

5. OBJECT.—It is very easily seen that the "trust" is but a dishonest device to destroy competition, and to swell the profits of the manufacturers, or operators, or dealers, without a dollar of additional capital being put into the business.

6. RESULT.—The results are, that the consumer pays the increased profits of the bogus capital of the corporation, and the producer has to accept for his products just what the managers of the "trust" choose to pay.

7. ROBBERY.—It is organized robbery, and nothing less, and should be treated by our courts the same as any other stealing.

Corporations and Stock Investment Explained.

1. An incorporated company is an association authorized by law to transact business. It is a fictitious person that can sue or be sued.

2. Stocks are divided into several parts called shares, and the owners of the shares are called stockholders.

3. Certificates of stock are written statements specifying the number and value of the shares to which their holders are entitled. They are often called scrip.

4. The par value of the stock is the sum named on the face of the scrip, and is thence called its nominal value; the market value is the sum for which it sells. When shares sell for their nominal value, they are at par; when they sell for more they are above par, or at a premium; when they sell for less, they are below par, or at a discount.

5. The gross earnings of a company are its entire receipts; the net earnings are the sums left after deducting all expenses:

6. Installments are portions of the capital paid by the stockholders from time to time. Dividends are portions of the earnings distributed among the stockholders. They are usually paid at stated periods; as annually, etc.

7. A corporation differs from a partnership in two particular ways. First, it cannot exist except by authority of State or national Legislature. Second, the private property of the stockholders cannot be taken for the debts of the corporation, unless the statutes of the State so declared when the charter was granted.

8. In many of the States general acts of incorporation are passed under which companies may organize, without the necessity of special legislation in each case.

9. Great care and good judgment should be used in the purchase of shares of stock, for bad management, dishonesty and contention have ruined many prosperous corporations and stock companies.

No. 276.

200 Shares

SCRANTON BUTTER COMPANY



PENNSYLVANIA

OF SCRANTON.

This Certifies, that.....Robert Barnard.....is entitled to.....Two Hundred.....Shares in the Capital Stock of the

SCRANTON BUTTER COMPANY,

Transferable only on the books of the Company, in person or by Attorney, upon the surrender of this Certificate.

In witness whereof, the Seal of said Company is hereunto affixed.

(Seal.)

SCRANTON, July 2d, 1891.

Henry S. Smith Treas.

J. A. Westel, Pres't.

Shares \$50 Each.

HOW TO DETECT



COUNTERFEIT MONEY.

1. A COUNTERFEIT is a fac-simile of the genuine, or made as nearly like it as possible. A spurious note is different in design from the genuine and is calculated to pass where the genuine is not much known. An altered note is one altered from a lower to a higher denomination. Piecing is done by making ten notes or bills out of nine, by cutting a counterfeit note into ten pieces.

2. There are two silk threads through the bill lengthwise, one near the top and one near the bottom. By holding it up to the light you can easily see the threads in each bill. This is one of the best tests of a genuine bill, because no counterfeiter can put in the silk threads and imitate the genuine bill in that respect.

3. See that the portraits are good, and notice that the pupil and the white of the eye show distinctly. Then see that the sky and water are clearly transparent. In counterfeit notes the pictures are always poor and the sky, water, etc., looks scratchy and irregular.

4. The ink used in genuine notes is very difficult to imitate. It gives a clear, glossy expression, while counterfeiter's ink looks dull, smutty and muddy.

5. The paper of a counterfeit is always of an inferior quality, while the government has the best and most perfect system of manufacturing the highest grade of paper.

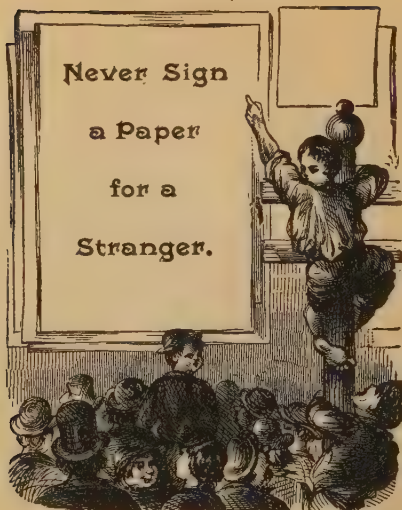


"Hatching Trouble."

6. Examine the medallion rulings and circular ornaments around the figures with a microscope, and see if they are regular and in all parts mathematically exact. This is done by a machine that costs from \$75,000 to \$150,000, and consequently is beyond the reach of counterfeiters. Engravings by hand can never imitate this work. These medallion lines, or rulings, can be traced by means of a line through the figures, never breaking or losing itself in another line. In counterfeits it is always broken and irregular.

7. Notes are altered by raising the denomination by taking out the genuine with acid and printing in a higher denomination with a counterfeit die. They can be easily detected by the stain which the acid produces with which the figures are taken out.

8. NEVER BE IN A HURRY IN TAKING MONEY. Look at it carefully, and never hand a bill of large denomination to a showman, especially at the tent of these traveling circuses or at the door of cheap theaters. If they have counterfeit money they will not hesitate to mix it up in the change they return to you.



SWINDLING SCHEMES.

SIX PRACTICAL RULES TO REMEMBER.

1. BEWARE OF THE SWINDLER, He is everywhere and in all kinds of business.

2. *Never sign a paper of any kind for a stranger. Make every man unknown to you, who desires to do business with you, prove to you, beyond a doubt, that his business is legitimate and that he acts within the limits of his authority.*

3. *Never try to beat a man at his own game.* The sharpers at every fair and circus and other places where people in large numbers congregate, will always offer you great inducements with cards, dice, wheels of fortune, etc. They will urge you to bet on a certain card or number and show you how one dollar could have won \$20.00 or a \$100.00; but when you bet your money, you never win.

4. *Never bet or gamble.* In trying to get something for nothing, we too often find ourselves the victims of confidence and swindling schemes. Honesty is the best policy, always has been and always will be.

5. *Never try to get the best of a sharper by buying a box, watch-case, or anything else in which you have seen him put a \$10 or a \$20 bill.*

6. Deal with responsible parties, or see that the article is worth the price before paying for it, and you will never suffer the mortification of being *swindled*.



CHEERING THE OWNER OF THE WINNING HORSE AT THE RACES.

GAMBLING AND BETTING.

1. Every Device that suddenly changes money or property from one person to another without leaving an equivalent, produces individual embarrassment—often extreme misery. More pernicious is that plan, if it changes property and money from the hands of the many to the few

2. **Inflicts Injury.**—Gambling does this, and often inflicts a still greater injury, by poisoning its victims with vice that eventually leads to crimes of the darkest hue. Usually, the money basely filched from its victims is the smallest part of the injury inflicted. It almost inevitably leads to intemperance. Every species of offense, on the black catalogue of crime, may be traced to the gambling table, as the entering wedge to its perpetration.

3. **Innocent Amusement.**—To the fashionable of our country, who play cards and other games as an innocent amusement, we may trace the most aggravated injuries resulting from gambling. It is there that young men of talents, education and wealth, take the degree of entered apprentice. The example of men in high life, men in public stations and responsible offices, has a powerful and corrupting influence on society, and does much to increase the evil, and forward, as well as sanction the high-handed robbery of fine dressed blacklegs. The gambling hells in our cities, tolerated and patronized, are a disgrace to a nation bearing a Christian name, and would be banished from a Pagan community.

4. **Variety of Forms.**—Gambling assumes a great variety of forms, from the flipping of a cent in the bar room for a glass of whiskey, up to the splendidly furnished faro bank room, where men are occasionally swindled to the tune of "ten thousand a year," and sometimes a much larger amount. In addition to these varieties, we have legalized lotteries and fancy stock brokers, and among those who manage them, professors of religion are not unfrequently found.

5. **Gaming.**—Gaming cowers in darkness, and often blots out all the nobler powers of the heart, paralyzes its sensibilities to human woe, severs the sacred ties that bind man to man, to woman, to family, to community, to morals, to religion, to social order, and to country. It transforms men to brutes, desperadoes, maniacs, misanthropists, and strips human nature of all its native dignity. The gamester forfeits the happiness of this life, and endures the penalties of sin in both worlds.

6. **Betting on the Races.**—Look for greatness and goodness on the race track. Where is it to be found? The men who have paved their way to the front in achieving success have never been the companions of jockies or gamblers. Those who follow the races will live to seriously regret their folly.

7. Shun the Monster.—Let me entreat all to shun the monster, under all his borrowed and deceptive forms. Remember that gambling for amusement is the wicket gate into the labyrinth, and when once in, you may find it difficult to get out. Ruin is marked in blazing capitals over the door of the gambler; his hell is the vestibule to that eternal hell where the worm dieth not and the fire is not quenched.

8. Terrible Consequences.—The youth should not forget that if he is once taken in the coils of this vice, the hope of extricating himself, or of realizing his visions of wealth and happiness, is exceedingly faint. He has no rational grounds to expect that he can escape the terrible consequences that are inseparably connected with sin. If he does not become bankrupt in property he is sure to become one in character and in moral principle; he becomes a debauched, debased, friendless vagabond.

In our country alone 25,000 children were deserted by their parents in 1896.



There are 100,000 homeless children in the United States.

WHAT IS THEIR FUTURE?

A SWINDLING NOTE.

Naperville, Ill., Oct. 20, 1896.

One year after date, I promise to pay Fred. J. Davis, or bearer Ten Dollars, when I sell by order Four Hundred and Seventy-five Dollars (\$475.00) worth of Patent Fanning Mills, for value received, at ten per cent. per annum. . . . Said ten dollars when due is payable at Naperville, Illinois.

Witness: M. J. Meyer.

E. C. Selby,

Agent for Fred. J. Davis.

1. Although the above scheme of the confidence man has been exposed time and time again, yet it still continues to add yearly to its list of victims. A paper is drawn up wherein a farmer agrees to pay ten or twenty dollars when he has sold goods to a given amount. By tearing off the right-hand end of this paper, what is apparently an agreement for a small amount, becomes a promissory note for a considerable sum. This note is sold at a bank, thereby becoming the property of a third and innocent party, and the signer of the agreement is called upon to pay the note.

2. Never sign a paper without carefully reading and examining the same. It is dangerous to sign a paper for an unidentified stranger.



DON'T TRY TO GET SOMETHING FOR NOTHING.

THE CHEAP JEWELRY SWINDLE.

Experience has proven again and again, that there is nothing gained BY TRYING TO BEAT A MAN AT HIS OWN GAME and succeed in getting something for nothing.

THE SWINDLE.

The auctioneer starts out, after getting a crowd about him, by giving back to the purchasers more money than they paid for the article, but this does not generally last long. Higher priced articles are soon put up, such as watches, etc., and the price raised from 50 cts., or a \$1.00 to \$10.00 or \$20.00. The purchaser sees the seller stick a \$20.00 bill or a \$50.00 bill into the watch and close it up, and so sure are the spectators that they saw the money go into the watch that there is no lack of purchasers. But when the watch is purchased and opened it contains a \$1.00 bill instead of a \$20.00, and the purchaser is a wiser, but not a richer man.

COUNTERFEIT MONEY SWINDLE.

This scheme has long been practiced in different parts of the country, yet the victims are numerous, hundreds being added annually to the list.

It is simply a shrewd system of black-mailing, and worked as follows : The swindlers or black-mailers (as they can more properly be called) get together, make up plausible circulars, and secure advertisements in local newspapers in the territory which they intend to work up. No work is done in their own neighborhood, all operations being planned from headquarters when the victims are selected. The "gang" has a number of schemes, but the favorite one is, to send some person, who has answered their circulars, a genuine new bill, and to get him on pretense, to see if it is good. As the bill is genuine there is no difficulty in passing it. The dupe is then informed that he will be supplied with any amount of similar good money at a trifling cost.

If the man bites the tempting bait placed before him, he is made to sign a document which he is told admits him to membership in a secret society known as the Y. F. A. R., and the money is to come in a few days. Instead, however, a man makes his appearance who represents himself as a United States officer ; he shows up the document signed by the poor fellow, which practically proves to be a confession of circulating counterfeit money, and also calls his attention to the bill which he passed.

The victim is told that he must go to Washington and be tried by a United States Court, and the penalty for making and passing counterfeit money is also read. He is cleverly told the long delay at heavy cost and the sure penalty.

When the victim is sufficiently wrought up, the officer offers to compromise for all the way from \$200 to \$2,000. The money is paid or secured, the document torn up and the dupe released.

NOTE.—A man who is caught in a swindling scheme of this kind is utterly helpless and at the mercy of his captors. He dare not go to officers and make complaint against the rascals without exposing himself, because he never would have been caught in the trap had he not shown a willingness to handle and pass counterfeit money, and consequently is as guilty as the swindler in the eyes of the law.

BEWARE OF STRANGERS WHO OFFER YOU GREAT INDUCEMENTS. BEWARE! BEWARE!! BEWARE!!!



A SWINDLER SECURING THE SIGNATURE OF HIS VICTIM.

THE BARB-WIRE SWINDLE.

The "Wire Fence Man" is a new swindler working the farmers. The scheme is a shrewd one and is executed as follows: A nicely dressed man, very pleasant in his manners, meets the farmer in his field or at his home, and desires the privilege of exhibiting his wire fence stretcher machine, for which privilege he will build the farmer thirty or forty rods of good fence for exhibition. All the agent asks is board while he is at work on the fence, with the understanding that the farmer is to go after the machine at the nearest depot and pay the charges not to exceed \$3.00 for the fence, all set up where he wants it. In order to have everything understood, and as a warrant of the farmer's good intentions, he requires him to sign a written order on a postal card, which he mails (as he says) to his partner, which proves to be a written contract for the machine, price \$200 (worth less than \$25.00). After the machine comes, a new man turns up with the postal

order for the machine, and requires the payment of the \$200 as per agreement on the card. He claims to be an attorney for the company and threatens to sue in the highest courts until he secures the payment of the order.

When will people begin to study the "Safe Methods of Business" and learn that it is not safe to SIGN A PAPER FOR A STRANGER?

THE PATENT FENCE SWINDLE.

It is an old but true maxim, that "experience is an expensive teacher," but many will learn in no other way. The wire and picket fence combination is a good article for fencing gardens, etc., too expensive, however, for general use.

THE SWINDLE.

An agent, very nicely dressed, meets you in your garden or field, and shows you extensive engravings of the patent combination fence. He warrants the fence to be just as represented, 44 pickets to the rod, well painted, firmly fastened by six galvanized steel wires, etc. All of this he agrees to furnish at the low price of 20 cts. per rod.

After convincing you of the cheapness of the fence, which is easily done, he offers you a special discount to take the agency for your township, for which you are to advance your credit to the amount of \$128. After securing your note he sends you a sample of the fence. But you soon find that the fence cannot be made for any such price per rod, and you are out of the amount of credit advanced. The note has been sold, and after passing into the hands of an innocent party it can be collected.

1. CAUTION. The fence is a Patent Right Fraud. Any man who asks you to sign a note to secure an agency is a swindler, or is acting the part of a rascal for some one else.

2. If the fence was not a fraud, our hardware merchants would long ago have investigated it, and if a good thing, would have it in stock. It must be a poor concern that necessitates such an unbusiness-like introduction.

3. Whoever deals with an agent deals with him at his own risk, for an agency can be revoked at any time.

4. Most of those swindling contracts are for no specified time and consequently the agency can be terminated at the pleasure of the swindler.

5. Never sign a paper for an agent without satisfactory knowledge of his character, or of his business.



ALWAYS READ BEFORE SIGNING.

Among the pithy sayings of a well-known German philosopher and reader occurs the following: "Sign no paper without reading it." In these days of education, enlightenment and progress, such a caution would hardly seem necessary to any person in the full possession of his faculties; yet it is astonishing how many people there are, including good business men, who attach their signatures to papers or documents whose contents may have a serious bearing upon themselves or their affairs, with scarcely a glance at their contents. Carelessness in failing to acquaint themselves with the contents of a paper before signing it has worked incalculable harm to thousands of well intentioned people. It is a good thing, therefore, to bear in mind continuously the above quotation, particularly with respect to such papers as express or imply anything in the nature of a contract or a legal obligation.

THE LIGHTNING-ROD SWINDLE.

CONTRACT.

Naperville, July 3, 1896.

Mr. *F. J. Bechtold*, please erect at your earliest convenience your lightning rods on my *House* according to your rules, of which said *House* I am the owner, for which I agree to pay you cents per foot and \$3.00 for each point, \$4.00 each for vanes, \$5.00 each for arrows, \$1.50 each for balls, and \$2.00 for braces, cash, when completed, or a note due on the first day of *January* next, 1897.

F. Hauswirth.

1. In the blank for cents....., the canvasser or agent puts in some single figure, say 7, that being understood to be the regular price per foot, but after the contract is signed, the agent at his leisure quietly inserts a 6 before the 7, or some other figure, making the amount 67 cents per foot instead of 7 cents, as signed and agreed upon.

2. A swindling note is generally obtained, and the contract is kept in the background; but when the collector comes along and presents the note backed by the contract in plain figures, the farmer sees that he *himself has been struck by lightning* while trying to protect his house.

3. The note is generally in the hands of an innocent party, and according to law may be collected.

4. The agent canvassing the victim generally promises that the rodding of the house shall not cost over \$28.00 or \$35.00. But that man, however, never appears on the scene again.

5. Never deal with irresponsible persons. If you desire rods, employ your hardware merchants; or if you desire anything in the machinery line, patronize honest and trusted dealers, and take no chances of "being taken in."

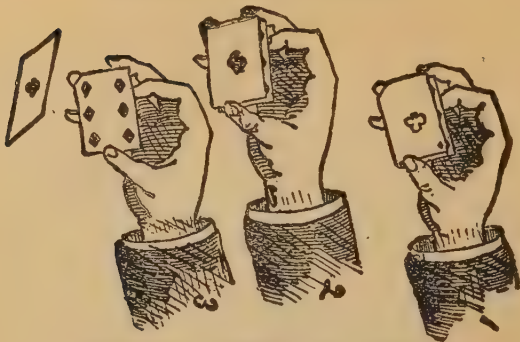
THE FARM-MACHINERY SWINDLE.

The latest scheme for fleecing unwary farmers is as follows: A plausible, well-dressed fellow drives up to the farmer's house with two or three different kinds of farm-machinery, and asks permission to store his machines in the farmer's barn, and the accommodating farmer usually gives permission.

After the machines are stored away, the sharper remarks that they are the last of a large lot that he has been selling through the country, and that he is anxious to close out the consignment, and if the farmer will sell two or more of the machines while they are stored in the barn, he shall have 50 per cent. commission on the sale. The offer is a tempting one, and the farmer usually accepts. He is then requested, merely as a business form, to affix his signature to a document, specifying the terms on which the machines are stored on the premises. The farmer signs a lengthy printed document without reading it, or perhaps, if read, without understanding it. At the expiration of 30 days he is astounded by finding himself called upon by another stranger to pay an exorbitant price for the machines stored in his barn. When the farmer objects, he is shown his signature attached to an agreement, which agreement, his lawyer tells him, is drawn in good legal form.

The victims of this game usually lose from \$200.00 to \$500.00.





THE CARD SWINDLER'S TRICKS.

How People Lose their Hard-Earned Money.

1. **THE THREE-CARD MONTE TRICK.** The three-card monte game is, of course, the old one and the best one known to get the greenhorn's money.

2. There are gamblers who make from twenty-five to fifty thousand dollars a year in playing this game, and this amount **all** comes from the innocent and unsuspecting people who **think** they have got a snap and try to make something because they think they have the advantage, but on the contrary are **always** taken in themselves.

3. The successful three-card monte player generally appears in the disguise of a farmer or cattle man, he speaks in the farmer's tone and acts in the farmer's manner and is dressed in the farmer's style. He appears ignorant and manifests more or less intoxication. Generally has his pockets full of rolls of money.

4. **THE GAME.** The cards are three in number and are made especially stiff so that they will hold a corner when turned.

5. **THE CAPPER.** Every monte player has a capper. A capper is a green ignorant looking man who always plays the game and wins a great deal of money. This is done to induce others to play the game. The capper and gamblers are generally in partnership.

6. The first turn the capper wins. Then he turns the corner of a card when the player is not looking, and his friend think-

ing he has a sure thing bets on the card. In manipulating them the player flattens that card, with some sleight of hand movement and turns the corner of another. The betting man of course picks up the wrong card and loses his money.

7. The capper sometimes marks the card by putting a wet spot on it, and the man who bets on that card finds that the spot from the right card has been wiped off and the spot put on another card by the same sort of a sleight-of-hand performance.

8. There are some three-card monte players that are such experts at the game that the capper will tear off the corner of a card, and the innocent farmer betting on the card thus marked finds it has been turned under the corner of another card and the corner of the right card is covered up with the corner of another card.

9. BEWARE. The man who is fooling with cards and offering to bet is not fooling away his money. You will never win anything in that way. Do not try to get something for nothing and think you have a snap; for if you play the game with some one else you will soon become a wiser but a poorer man.



THE ENVELOPE SWINDLE.

1. The envelopes filling an ordinary box each have slips inclosed marked with numbers corresponding with numbers in a show case. There are generally numerous cappers around a game of this kind who play and win large prizes.

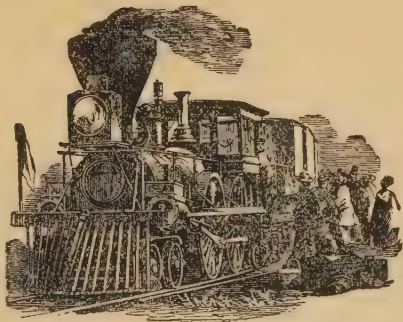
2. Many of the envelopes contain a double ticket and the man who plays the game generally opens the envelopes himself when there is nothing at stake and shows you the winning number, but when you draw it he will show you the other slip that contains the other number and you are the loser.

3. Many of these players give a lot of brass or silver washed prizes that are worth about two or three cents apiece.

4. If you desire to make money, remember that the man who plays games does not go around the country giving away money, but they are generally the sharpest and shrewdest of gamblers, and if you desire to be safe have nothing to do with them, and remember, "*that an honest man never gambles.*"



Fortune's Nest.



Liability of Railroad and Express Companies.

1. *Common Carriers.* Where goods are entrusted to common carriers, such as railroads, steamboats, etc., to be transported from place to place, the carrier impliedly promises ordinary diligence, and it is liable for carelessness and negligence. Any accident or delay on account of carelessness will hold the company in whose possession the goods have been entrusted.

2. *Duty of Carriers.* It is the duty of carriers to take the utmost care of goods from the moment they are received, and to obey the directions of the owner or shipper.

3. *Responsibility.* Common carriers are not responsible for damages caused by the act of God, such as winds, storms, floods, earthquakes, etc.

4. *Damages.* Any damages that have occurred to the goods in possession of the carrier must be made good if it occurred by carelessness of any of the employees.

5. *Loss by Fire.* The carrier is liable for any and all loss occasioned by accidental fire.

6. *Perishable Goods.* Carriers are not responsible for loss to fruits that decay in their possession or goods shipped in defective boxes, such as glassware not properly packed, and other articles that are easily broken. Goods must be properly packed in order to make the carrier responsible.

7. *Receipt.* In shipping goods by freight or express a receipt should always be taken and safely laid away.

8. Collecting Damages. In case of damages to goods the railroad or express company should be duly notified and the amount of damages stated, or sworn to before proper officers and with sufficient evidence if required.

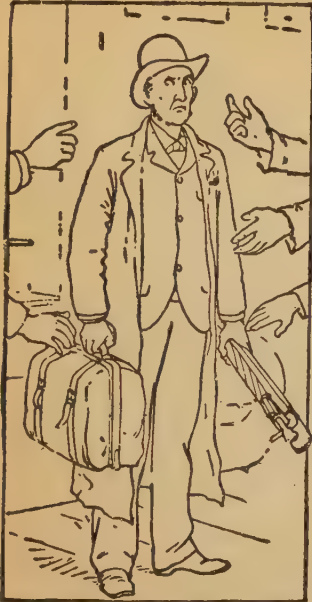
Damages Recoverable for Unreasonable Delay in Forwarding Baggage.

The measure of damages recoverable for a common carrier's unreasonable delay in forwarding a passenger's baggage is the value of the use of the property to owner during the delay in delivering it. As to what that value is the opinion of persons familiar with the facts, together with the facts and conditions, will be considered. It would be difficult, in such cases, to determine the value of use by a mere statement of the facts. And the opinion of persons having a knowledge of the facts though some evidence, is not an absolute guide, but an assistance, which is available in the absence of more reliable proof. *Gulf, C. & S. F. Ry. Co. v. Vancil. C. Civil Appeals 21 S. W. Rep. 303:*

Liability of Common Carriers for Loss or Injury of Freight.

A common carrier must pay the market value, at the point of destination, of all property intrusted to it for transportation, which, through its fault, is lost or destroyed, and is not delivered. The law, also, is that if a carrier receives property for transportation, and delivers it at the end of its route, but through its fault it is damaged, and it fails to deliver it in the same condition as when received, it must pay the difference between the value of the property in its damaged condition, at the point of destination, and what the value of the property would have been at that place if delivered in the same condition as when it was received for transportation. *New York L. E. & W. R. Co. v. Estill. S. C. U. S. 13 Sup. Ct. Rep. 444*

How to Secure an Appointment under the Civil Service Law.



OFFICE SEEKERS WELCOMING A NEWLY ELECTED MEMBER OF CONGRESS ON HIS ARRIVAL AT WASHINGTON.

1. In 1883 Congress passed a law for the improvement of the civil service in the United States. This law provides for three commissioners appointed by the President. They have general charge of filling the vacancies in the various subordinate departments at Washington, and in all custom-houses and postoffices having as many as fifty office-holders.

2. There are over 120,000 clerks in the government employ by whom the business of each administration is carried on. About 5000 of these are directly appointed by the President; about 15,000 are under what is known as the "Civil Service Rules." Thus it is seen that a great body of officeholders are appointed by the heads of departments.

3. In order to have better service and secure men according to their fitness rather

than party affiliation, a system of competitive examinations has been organized, and the competitors are required to be examined on the following subjects: 1. Orthography, penmanship and copying, 2. Arithmetic — fundamental rules, fractions and percentage. 3. Interest, discount and the elements of book-keeping and of accounts. 4. Elements of the English language, letter writing, and the proper construction of sentences. 5. Elements of the geography, history and government of the U. S.

4. A standing of 65 per cent. in the first three branches is necessary in order to qualify an applicant for an appointment. Where special qualifications are necessary, special examinations are given.

5. Every applicant must furnish proof that he is of good moral character and in good health.

6. There is a board of examiners in each of the principal cities of the United States, and several examinations are held each year. Several of our States have adopted the principles of the general government, and are employing clerks under their own civil service rules.

7. If you desire to enter an examination, address, "Civil Service Commissioner", Washington, D. C., and you will secure a full set of papers, and complete information as to time and place where the examinations are held, and full instructions for entering same.

LAW GOVERNING MINE AND MINERS.

1. **The General Rule.** Laws differ in different states and territories, but there are some general principles and general laws which apply to all the states and territories. The first thing a prospector should do is to find under which laws the territory or state is governed, and then by inquiry determine the steps necessary in order to legally locate the claim. But the following principles will apply to all unless recent changes have taken place.

2. **How to Stake Off a Claim.**—If there is evidence of mineral in paying quantity, and the property is not owned by a private party, the miner is entitled to stake off the land, and he is entitled to it according to the law of the state or territory in which the ore is found. Caution must be taken to stake off the claim and give correct boundaries, or an application for patent will be refused. The claim must be located according to law, and publications made by inserting the notice in some weekly newspaper for ten consecutive weeks, and a notice must be posted on a conspicuous part of the claim staked out.

3. **An Adverse Claim.**—An adverse claim to be effective must be made out in proper form and filed in a proper legal office during the period of publication of the application for the patent. The adverse claimant must commence suit in proper form within the required time, and runs a risk if he



EARLY CALIFORNIA MINING.

trusts the uncertainty of the United States mail. He must set forth in detail the facts on which he bases his adverse claim.

4. **A Foreigner.**—A foreigner may make a mining location and dispose of it if he becomes a citizen before disposing of the mine.

5. **A Prospector.**—A prospector with a discovery claim is allowed sixty days to sink a discovery shaft to the distance of ten feet. At the place of discovery it is customary to post a notice like this.

6. **Lawful Survey Made.**—After sinking the shaft ten feet the miner will, if possible, have a competent and lawful survey made. But without a survey the claim will be defined sufficiently to enable a record to be made if it is marked off by stakes driven into the ground or supported by a pile of stone around each. The next step is to have a record made in the recorder's office of that county.

7. **The Term.**—The term of a mining tunnel, ditch or mining company cannot exceed twenty years. No miner has a right to undermine the improvements of another un-

less by legal permission. A copy of mining laws in each district will be found at the county clerk's office in the district where the mine is located.

8. **Right of Way.**—Miners have the right of way across any claim when hauling quartz. Water may be brought across any claim road or ditch or other mining improvement, provided it is so guarded that it does not interfere with the prior rights of another.

9. **In Locating a Placer.**—In locating a placer (that is, surface or loose dirt) claim, the amount of land is limited to 20 acres to one person. An association of eight persons may locate 160 acres.

10. **Citizens of the United States.**—To secure claims from the government the miner must be a citizen of the United States or have legally declared his intention to become such.

11. **Destroy or Remove Location.**—Any person who shall destroy or remove location stakes, except on abandoned property, shall be liable to a fine of \$1,000 and one year's imprisonment.

12. **Jumping a Claim.**—The person jumping a claim owned by another and gaining the same by threats or violence shall be liable to a fine of \$250 and imprisonment in the county jail for six months.

13. **United States Law.**—The United States law allows five acres to be taken as a claim for a mill site, but the site must not be upon known mineral lands. Sometimes the district regulations restrict the amount to much less dimensions.

14. **Change the True Value.**—Any person engaged in milling, sampling, reducing, shipping or producing ores, who shall knowingly change the true value of the same, whereby the owner of such ore shall not obtain its true value, shall be liable to a fine of \$1,000 and one year's imprisonment.

15. **"Salting."**—"Salting" a claim, that is, taking ore from another mine and placing it in the one that is to be sold, thereby deceiving the purchaser, is punishable by a fine of \$1,000 and confinement in the state prison fourteen years.

16. **Liable to a Fine.**—The superintendent, manager or owner of a quartz mill, mill furnace or cupel, engaged in extracting ore, who shall neglect or refuse to account for and pay the owner of the quartz or mineral all sums which shall be due, except such as may be retained for services, shall be liable to a fine of \$1,000 and imprisonment not exceeding one year.

HOW TO LOCATE A MINE.

1. **Who May Locate a Mine.**—Any person of lawful age who is a citizen of the United States or shall have legally declared his intention to become such may locate a mine.

2. **Must be Actually Discovered.**—A mineral bearing ledge, lode or vein must be actually discovered on the claim it is proposed to locate.

3. **The Ground Entitled to.**—Unless the width is modified by the laws of a local mining district, the ground entitled to with a mining claim is 1,500 feet along the ledge by 300 feet each side of the ledge or 600 feet wide.

4. **Point of Discovery.**—The point of discovery may be within any part of the 1,500 feet.

5. **Boundary Description.**—In the boundary description of mine use the terms easterly and westerly, northerly and southerly instead of the more positive terms east, west, etc.

6. **General Description.**—Make the general description as short as possible, and mention adjacent or neighboring mines, distance and direction, well known natural objects, or permanent monuments.

7. **Location Notice.**—The location notice must be posted at the point of discovery. The corners of claim must be marked by blazed trees, stakes or monuments.

About five days are allowed to post up location notice, and from ten to thirty days to have the same recorded. Record with the district recorder, or if in an unorganized mining district, record with the county recorder. If not in actual personal possession of the proposed location, post location notice and have it recorded as soon as possible.

8. **Assessment Work.**—To hold a mine \$100 worth of assessment work in labor or improvement must be done on it annually, and the calendar year in which to commence the assessment work begins with the January following the fractional year in which the location is made.

9. **Two or More Locators.**—Two or more locators on the same ledge may consolidate and do the amount of their combined assessment work on one claim of the group.

How to Obtain a Patent.—The affidavits of assessment work by two credible witnesses should annually be filed with the district or county recorder. When \$500 worth of assessment work has been done on a mine a patent to it may be obtained from the Government according to United States mining laws.

NOTICE OF LOCATION.

Notice is Hereby Given, That the undersigned having complied with the requirements of Section 2324 of the Revised Statutes of the United States, and the local laws, customs and regulations of this district, have located fifteen hundred feet in length by six hundred feet in width, on this, the California Lode, Vein or Deposit, bearing gold, silver and other precious metals, situated in Levan Mining District, Juab County, Utah, the location being described and marked on the ground as follows, to-wit :

Commencing at this monument and running 300 feet easterly, thence 1,000 feet southerly, thence 600 feet westerly, thence 1,500 feet northerly, thence 600 feet easterly, thence 500 feet southerly, thence 300 feet westerly to point of beginning; point of discovery and corners being designated by monument, stakes or blazed trees. The above mine is located about four miles up Levan Canyon on the left hand side and about six miles west of the town of Levan.

The Mining Claim above described shall be known as the California Mine.

Located this 17th day of September, 1896.

NAMES OF LOCATORS:

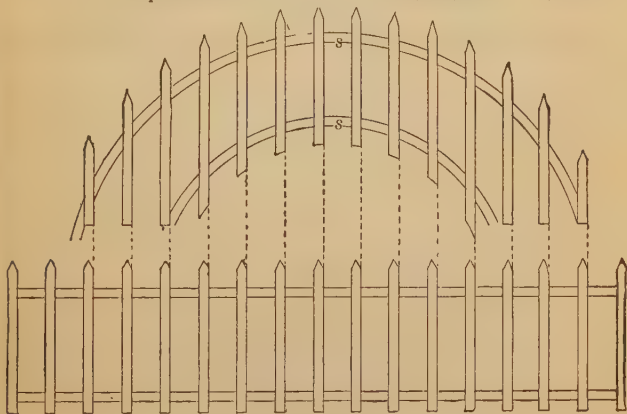
Richard Roe.

John Doe.

THE BUSY MAN'S DIGEST OF FACTS.

OCCUPATIONS OF PEOPLE IN THE UNITED STATES

	Males.	Females.
Farmers.....	5,055,130	226,427
Miners.....	349,230	352
Clergymen.....	87,060	1,235
Lawyers.....	89,422	208
Physicians.....	100,248	4,555
Teachers.....	104,938	245,965
Saloon Keepers.....	69,137	2,275
In Manufacturing Industries.....	4,064,144	1,027,525
All Occupations.....	18,820,950	3,914,711



Does it Take More Pickets to Build Over a Hill than on a Level?

Many arguments and discussions have taken place over this simple problem. It takes no more pickets to build over a hill than on a level. You can see from the above figure, that the number of pickets are the same by actual count. The curve lines represent the hill, and the lower lines the level ground. The dotted lines join the two, and they make the same fence over the hill, and are no farther apart than on the level.

POPULATION OF THE WORLD, 1890.

	Area in sq. miles.	Population.
Oceanica.....	3,458,029	5,684,600
America	14,796,988	121,728,784
Africa	11,518,104	168,499,017
Europe	3,797,410	357,851,580
Asia.....	17,039,066	825,954,000
Polar Regions.....	1,689,834	11,170
Total.....	52,299,431	1,479,729,151

HOW MUCH ADVANTAGE IS GIVEN BY CHANGING THE EVENER.



Caution.—In moving the center pin of an evener one inch toward one of the end pins it changes the draft twice as much as it does to move one of the end pins one inch toward the center pin. Or in other words, moving the center pin changes the draft twice as much as changing one of the end pins or clevises.

An average evener is 42 inches in length.

Now if the center pin is moved one inch from the center to the right or left, the horse drawing on the short end will pull about $\frac{1}{20}$ more than the horse drawing on the opposite end.

If one of the end pins is moved one inch the difference will be about $\frac{1}{40}$.

Example: If a team of horses draw 2,000 pounds, and the center pin is moved one inch from the center, what part of the whole load will each draw?

$$2000 \times \frac{1}{20} = 100 \text{ pounds, the difference.}$$

$$100 + 1000 = 1100 \text{ pounds.}$$

$$1000 - 100 = 900 \text{ pounds.}$$

Hence the horse at the short end of the evener draws 1,100 lbs., and the other horse draws 900 lbs.

The draft on a 14-inch plow plowing 4 inches deep, is about 1,000 lbs.; 5 inches deep, 1,250 lbs.; 6 inches deep 1,500 lbs.



Facts Concerning Stone-work, Brick-Work and Plastering.

STONE-WORK.

1. A cord of stone, three bushels of lime and a cubic yard of sand will make 100 cubic feet of wall.
2. One cubic foot of stone-work weighs from 130 to 175 pounds.

BRICK-WORK.

3. Five courses of brick will make one foot in height on a chimney.
4. One cubic foot of brick-work with common mortar weighs from 100 to 110 pounds.
5. A cask of lime will make mortar sufficient for 1000 bricks.

FOR PLASTERING.

6. Six bushels of lime, 40 cubic feet* of sand, and $1\frac{1}{2}$ bushels of hair will plaster 100 square yards with two coats of mortar.

* N. B.—There are about $1\frac{1}{4}$ cubic feet in a bushel.

Short Method of Estimating Stone-work.

Rule.—Multiply the length in feet by the height in feet, and that by the thickness in feet, and divide this result by $27\frac{1}{2}$ and the quotient will be the number of perches of stone in the wall.

Example: A wall is $4 \times 15 \times 2 = 120$ the solid contents.
 $120 \div 27\frac{1}{2} = 4\frac{4}{11}$ perches.

N. B.—In a perch of stone there are $24\frac{3}{4}$ cubic feet, but $2\frac{3}{4}$ cubic feet are generally allowed for the mortar and filling.

How to find the Number of Cord Stone to Build Cellar and Barn Walls.

RULE.—Multiply the length, height and thickness together in feet and divide the result by 156.

N. B.—There are 128 cubic feet in a cord, but the mortar and sand make it necessary to use but 100 cubic feet of stone.

Cigar smoke in the corn field may prevent the appearance of crows, but not of the sheriff.

THE COST OF SMOKING.

The following figures show the expense of smoking two cigars and three cigars a day, at 5 cents each, and at 10 cents each, from the age of 20 to the end of each period of five years, up to the age of 70, 6 per cent. compound interest semi-annually being reckoned upon the money.

From the Age of—	Two Cigars a Day at 5 Cents Each.		Three Cigars a Day at 5 Cents Each.	
	Principal.	Prin. & Int.	Principal.	Prin. & Int.
20 to 25 years.....	\$ 182.50	\$ 209.21	\$ 273.75	\$ 313.95
20 to 30 ".....	365.00	490.39	547.50	745.74
20 to 35 ".....	574.50	868.25	821.25	1,314.72
20 to 40 ".....	730.00	1,376.08	1,095.00	2,081.16
20 to 45 ".....	912.50	2,058.44	1,368.75	3,110.74
20 to 50 ".....	1,095.00	3,094.99	1,642.50	4,494.41
20 to 55 ".....	1,277.50	4,367.46	1,916.25	6,353.87
20 to 60 ".....	1,460.00	6,078.73	2,190.00	8,655.02
20 to 65 ".....	1,642.50	8,378.52	2,463.75	12,215.86
20 to 70 ".....	1,825.00	11,469.25	2,737.10	16,216.37

From the Age of—	Two Cigars a Day at 10 Cents Each.		Three Cigars a Day at 10 Cents Each.	
	Principal.	Prin. & Int.	Principal.	Prin. & Int.
20 to 25 years.....	\$ 365.00	\$ 418.43	\$ 547.50	\$ 627.95
20 to 30 ".....	730.00	980.78	1,095.00	1,471.56
20 to 35 ".....	1,095.00	1,736.52	1,642.50	2,717.85
20 to 40 ".....	1,460.00	2,752.20	2,190.00	4,231.24
20 to 45 ".....	1,825.00	4,115.92	2,737.50	6,382.47
20 to 50 ".....	2,190.00	5,949.88	3,285.00	9,205.16
20 to 55 ".....	2,555.00	8,414.47	3,832.50	12,998.61
20 to 60 ".....	2,920.00	11,738.03	4,380.00	18,100.14
20 to 65 ".....	3,285.00	16,093.51	4,927.50	24,952.72
20 to 70 ".....	3,650.00	21,937.72	5,475.00	34,162.14

PAINTING RULES.

One coat, or priming, will take, per 100 yards of painting, 20 pounds of lead and 4 gallons of oil. Two-coat work, 40 pounds of lead and 4 gallons of oil. Three-coat, the same quantity as two-coat; so that a fair estimate for 100 yards of three-coat work would be 100 pounds of lead and 16 gallons of oil.

One gallon priming color will cover 50 superficial yards; white zinc, 50 yards; white paint, 44 yards; lead color, 50 yards; black paint, 50 yards; stone color, 4 yards; yellow paint, 44 yards; blue color, 45 yards; green paint, 45 yards; bright emerald green, 25 yards; bronze green, 75 yards.

One pound of paint will cover about 4 superficial yards the first coat, and about 6 each additional coat. One pound of putty, for stopping, every 20 yards. One gallon of tar and one pound of pitch will cover 12 yards, interchange the first coat, and 17 yards each additional coat. A square yard of new brick wall requires, for the first coat of paint in oil, $\frac{3}{4}$ pound; for the second, 3 pounds; for the third, 4 pounds.

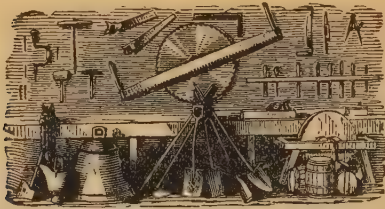
A day's work on the outside of a building is 100 yards of the first coat, and 80 yards of either second or third coat. An ordinary door, including casings, will, on both sides, make 8 to 10 yards of painting, or about 5 yards to a door without the casings. An ordinary window makes about $2\frac{1}{2}$ or 3 yards.

HOW TO MIX PAINTS OF VARIOUS COLORS.



Buff—White, yellow ochre and red.
 Chestnut—Red, black and yellow.
 Chocolate—Raw umber, red and black.
 Claret—Red, umber and black.
 Copper—Red, yellow and black.
 Dove—White, vermilion, blue and yellow.
 Drab—White, yellow ochre, red and black.
 Fawn—White, yellow and red.
 Flesh—White, yellow ochre and vermilion.
 Freestone—Red, black, yellow ochre and white.
 French Grey—White, Prussian blue and lake.
 Grey—White lead and black.
 Gold—White, stone ochre and red.
 Green Bronze—Chromegreen, black and yellow.
 Green Pea—White and chrome green.
 Lemon—White and chrome yellow.
 Limestone—White, yellow ochre, black and red.
 Olive—Yellow, blue, black and white.
 Orange—Yellow and red.
 Peach—White and vermilion.
 Pearl—White, black and blue.
 Pink—White, vermilion and lake.
 Purple—Violet, with more red and white.
 Rose—White and madder lake.
 Sandstone—White, yellow ochre, black and red.
 Snuff—Yellow and Vandyke brown.
 Violet—Red, blue and white.

The first named color is always the principal ingredient, and the others follow in the order of their importance. Thus in mixing a limestone tint, white is the principal ingredient, and the red the color of which the least is needed. The exact proportions of each color must be determined by experiment with a smaller quantity. It is best to have the principal ingredient thick, and add to it the other paints thinner.



How to Write Your Name on Iron Tools.

1. Melt a little beeswax or hard tallow and pour it on the iron at the place intended to be marked. After the wax or tallow cools take an awl or sharp piece of iron and write your name in it.
2. Pour a little nitric acid on the wax, where you have written your name, and allow it to remain a few moments. Then wipe off the wax, and your name remains indelibly marked as written in the wax.
3. Be careful and allow none of the acid to come in contact with your clothes or hands.



How to Write Your Name on Glass.

1. Apply beeswax and write your name as in the above.
2. Then instead of nitric acid, apply hydrofluoric acid, and your name will remain permanently written on the clear surface of the glass.

DISTANCES AND RAILROAD FARES FROM CHICAGO TO ALL THE PRINCIPAL CITIES OF THE UNITED STATES AND CANADA.

First-Class Fare Subject to Slight Changes.

(We aim to give the most direct route only.)

PLACES.	MILES.	FARE.	PLACES.	MILES.	FARE.
Albany.....N. Y.	838	\$16 65	Fort Wayne.....Ind.	148	\$ 4 45
Albuquerque...N. M.	1,391	43 00	Forest.....O.	239	7 15
Allegheny City...Pa.	467	12 00	Fort Scott.....Kan.	557	14 60
Alliance.....O.	385	9 70	Fort Worth.....Tex.	957	26 95
Altoona.....Pa.	686	15 50	Frankfort.....Ky.	368	9 96
Annapolis.....Md.	834	17 50	Galveston.....Tex.	1,152	32 50
Atlanta.....Ga.	733	21 40	Galesburg.....Ill.	164	4 88
Atlantic City...N. J.	886	19 25	Gettysburg.....Pa.	771	17 50
Atchison.....Kan.	556	12 50	Grand Rapids.Mich.	215	5 40
Austin.....Tex.	987	32 10	Grenada.....Miss.	618	18 74
Augusta.....Ga.	905	25 70	Green Bay.....Wis.	198	5 95
Bangor.....Me.	1,263	24 50	Greenville.....Tex.	905	26 10
Baltimore.....Md.	859	17 50	Hamilton...Canada	472	11 50
Battle Creek...Mich.	164	4 14	Harrisburg.....Pa.	716	17 25
Bellaire.....O.	469	11 00	Hannibal.....Mo.	329	7 25
Boston.....Mass.	1,004	19 00	Hamilton.....O.	288	8 05
Buffalo.....N. Y.	523	12 00	Hartford.....Conn.	961	19 50
Burlington.....Ia.	207	6 17	Helena.....Montana	1,562	46 50
Burlington.....Vt.	1,095	21 19	Hot Springs....Ark.	693	20 25
Cairo.....Ill.	365	10 94	Holly Springs.Miss.	543	15 85
Cape May.....N. J.	903	20 00	Houston.....Tex.	1,102	31 00
Charleston.....S. C.	1,103	26 30	Hudson.....N. Y.	836	19 31
Chattanooga...Tenn.	595	17 30	Indianapolis...Ind.	183	5 00
Cheyenne.....Wyo.	1,000	28 65	Iowa City.....Ia.	237	6 64
Cincinnati.....O.	300	8 00	Jacksonville...Fla.	1,083	27 80
Cleveland.....O.	339	8 50	Jackson.....Miss.	730	22 00
Columbus.....O.	398	8 50	Janesville.....Wis.	91	2 73
Council Bluffs...Ia.	488	12 50	Jackson.....Mich.	209	5 50
Columbia.....S. C.	837	25 70	Jefferson City...Mo.	376	11 05
Concord.....N. H.	763	19 00	Kansas City....Mo.	489	12 50
Corsicana, Tex.	975	28 25	Keokuk.....Ia.	250	7 15
Crestline.....O.	280	8 00	La Crosse.....Wis.	280	7 86
Davenport.....Ia.	183	5 02	Lake Geneva..Wis.	85	2 40
Dayton.....O.	265	7 25	Lansing.....Mich.	220	5 05
Denver.....Colo.	1,118	30 65	Leadville.....Colo.	1,169	37 50
Decatur.....Ill.	170	4 46	Leavenworth...Kan.	589	12 50
Detroit.....Mich.	272	7 25	Lexington.....Ky.	376	10 40
Des Moines.....Ia.	357	10 15	Lincoln.....Neb.	552	14 40
Dover.....Del.	921	19 70	Little Rock....Ark.	628	17 85
Dubuque.....Ia.	188	5 45	Louisville.....Ky.	303	8 00
Dunkirk.....N. Y.	500	13 50	Logansport....Ind.	116	3 50
Duluth.....Minn.	478	13 55	Long Branch...N. J.	914	20 00
Egin.....Ill.	36	1 10	London.....Canada	309	9 25
Erie.....Pa.	452	12 65	Lyons.....Ia.	137	4 27
Evansville.....Ind.	287	8 65	Madison.....Ind.	269	7 00
Fargo.....N. D.	645	18 48	Madison.....Wis.	138	3 92
Fernandina....Fla.	1,083	27 80	Marquette ....Mich.	390	10 87

DISTANCES AND RAILROAD FARES—Continued.

PLACES.	MILES.	FARE.	PLACES.	MILES.	FARE.
Manitowoc.....Wis.	162	4 87	Saratoga.....N. Y.	815	\$17 82
Macon.....Ga.	821	\$24 05	Sacramento.....Cal.	2,257	62 50
Memphis.....Tenn.	528	15 90	Salt Lake City Utah	1,566	42 25
Minneapolis.....Minn.	420	11 50	Santa Fe.....N. M.	1,342	41 05
Milwaukee.....Wis.	85	2 55	Sandusky.....O.	307	8 25
Montpelier.....Vt.	1,224	19 00	Savannah.....Ga.	1,088	26 30
Montgomery.....Ala.	793	21 00	San Francisco..Cal.	2,411	62 50
Mobile.....Ala.	973	22 00	Sherman.....Tex.	871	25 35
Montreal.....Canada	837	13 00	Shreveport.....La.	815	24 05
Muscataine.....Ia.	211	5 86	Sioux City.....Ia.	510	12 75
Nashville.....Tenn.	444	13 50	Springfield.....O.	300	7 75
New York.....N. Y.	912	18 00	Springfield.....Ill.	185	4 75
New Haven...Conn.	915	20 25	Springfield...Mass.	935	19 00
New Orleans....La.	912	23 00	Steubenville.....O.	426	13 30
Newark.....O.	365	8 35	St. Louis.....Mo.	280	7 50
Newport.....R. I.	1,044	20 32	St. Paul.....Minn.	410	11 50
Nebraska City Neb.	498	13 00	St. Joseph.....Mo.	469	12 50
Niagara Falls..N. Y.	513	12 55	Tallahassee.....Fla.	1,033	27 80
Ogden.....Utah	1,514	41 50	Terra Haute.....Ind.	178	5 36
Oil City.....Pa.	498	12 00	Texarkana.....Ark.	773	22 20
Omaha.....Neb.	497	12 75	Toledo.....O.	243	7 00
Ottawa.....Canada	757	18 00	Topeka.....Kan.	555	14 00
Paterson.....N. J.	969	18 00	Toronto.....Canada	506	12 40
Pensacola.....Fla.	955	22 00	Troy.....N. Y.	826	16 80
Peru.....Ind.	132	3 85	Urbana.....O.	267	8 05
Philadelphia...Pa.	822	18 25	Utica.....N. Y.	725	16 04
Pittsburgh.....Pa.	468	11 00	Vicksburg.....Miss.	761	23 00
Pine Bluff.....Ark.	633	19 00	Vincennes.....Ind.	235	7 10
Portland.....Me.	1,114	20 50	Waco.....Tex.	1,031	28 80
Portland.....Ore.	2,488	61 50	Washington..D. C.	819	17 50
Pullman.....Ill.	14	15	West Point....N. Y.	916	18 00
Pueblo.....Col.	1,107	29 50	Wheeling....W. Va.	475	11 00
Quebec.....Canada	1,007	21 00	White Mountains...		
Quincy.....Ill.	262	7 25	N. H.	1,037	19 65
Racine.....Wis.	62	1 85	White Sulphur Sp'gs		
Raleigh.....N. C.	1,154	27 35	W. Va.	637	16 55
Richmond.....Ind.	223	6 75	Wilmington...Del.	930	18 00
Richmond.....Va.	933	21 00	Winona.....Minn.	306	8 62
Rock Island.....Ill.	181	4 97	Winnipeg..Manitoba	845	25 70
Rochester.....N. Y.	550	13 38	Xenia.....O.	280	8 40
Rome.....N. Y.	711	15 76	Yankton.....S. D.	569	15 15
San Antonio...Tex.	1,213	34 50	Zanesville.....O.	390	9 00



Difference of Time Between Washington and Other Principal Cities of the World.

12.00	o'clock (noon)	at	-	-	-	-	-	-	-	WASHINGTON.
12.12	"	P. M.	-	-	-	-	-	-	-	New York.
12.24	"	"	-	-	-	-	-	-	-	Boston.
12.27	"	"	-	-	-	-	-	-	-	Portland.
1.37	"	"	-	-	-	-	-	-	-	St. John (N. F.)
4.31	"	"	-	-	-	-	-	-	-	Lisbon.
4.43	"	"	-	-	-	-	-	-	-	Dublin.
4.55	"	"	-	-	-	-	-	-	-	Edinburgh
5.07	"	"	-	-	-	-	-	-	-	London.
5.17	"	"	-	-	-	-	-	-	-	Paris.
5.58	"	"	-	-	-	-	-	-	-	Rome.
6.02	"	"	-	-	-	-	-	-	-	Berlin.
6.14	"	"	-	-	-	-	-	-	-	Vienna.
7.04	"	"	-	-	-	-	-	-	-	Constantinople
11.01	"	"	-	-	-	-	-	-	-	Calcutta.
12.54	"	A. M.	-	-	-	-	-	-	-	Pekin.
2.48	"	"	-	-	-	-	-	-	-	Melbourne.
4.51	"	"	-	-	-	-	-	-	-	Auckland.
8.58	"	"	-	-	-	-	-	-	-	San Francisco.
9.40	"	"	-	-	-	-	-	-	-	Salt Lake.
11.08	"	"	-	-	-	-	-	-	-	New Orleans.
11.18	"	"	-	-	-	-	-	-	-	Chicago.
11.52	"	"	-	-	-	-	-	-	-	Buffalo.
12.00	"	noon	-	-	-	-	-	-	-	Lima (Peru).

The above table is actual time, not *standard* time.

THE POPULATION OF THE PRINCIPAL CITIES OF THE UNITED STATES.

THE CENSUS OF 1880, 1890, AND 1900 OF EVERY TOWN AND CITY
HAVING A POPULATION OF 3,000 OR MORE.

CITIES.	1880.	1890.	1900.
ALABAMA.			
Anniston.....	942	9,998	9,695
Avondale.....		1,642	3,060
Bessemer.....		4,544	6,358
Birmingham.....	3,086	26,178	38,415
Decatur.....	1,063	2,765	3,114
Dothan.....		247	3,275
Eufaula.....	3,836	4,394	4,532
Florence.....	1,359	6,012	6,478
Gadsden.....	1,697	2,901	4,282
Gerard.....			3,840
Greenville.....	2,471	2,806	3,162
Huntsville.....	4,977	7,995	8,063
Mobile.....	29,132	31,076	38,469
Montgomery.....	16,713	21,883	30,346
New Decatur.....	1,905	3,565	4,437
Opelika.....	3,245	3,703	4,245
Phenix.....	2,224	3,700	4,163
Pratt City.....		1,946	3,485
Selma.....	7,529	7,622	8,713
Sheffield.....		2,731	3,333
Troy.....	2,294	3,448	4,097
Tuscaloosa.....	2,418	4,215	5,095
ARIZONA.			
Phoenix.....		3,452	5,544
Prescott.....		1,759	3,559
Tucson.....	7,007	5,150	7,531
ARKANSAS.			
Eureka Springs.....	3,984	3,706	3,572
Fort Smith.....	3,099	11,311	11,587
Helena.....	3,652	5,189	5,550
Hot Springs.....	3,554	8,086	9,973
Jonesboro.....		2,065	4,508
Little Rock.....	13,138	25,874	38,307
Mena.....			3,423
Paragauld.....		1,666	3,324
Pine Bluff.....	3,203	9,952	11,496
Texarcana.....	1,390	3,528	4,914
CALIFORNIA.			
Alameda.....	5,708	11,165	16,464
Bakersfield.....	801	2,626	4,836
Berkeley.....		5,101	13,214
Eureka.....	2,639	4,858	7,327
Fresno.....	1,112	10,818	12,470
Grass Valley.....			4,719
Los Angeles.....	11,183	50,394	102,479
Marysville.....	4,321	3,991	3,497
Napa.....	3,731	4,395	4,036
Nevada City.....	4,022	2,524	3,250
Oakland.....	34,555	48,682	66,960
Pasadena.....	391	4,882	9,117

CITIES.	1880.	1890.	1900.
Petaluma.....	3,326	3,612	3,871
Pomona.....		3,634	5,526
Redlands.....		1,904	4,797
Riverside.....		4,683	7,973
Sacramento.....	21,420	26,386	29,282
Salinas.....	1,854	2,339	3,304
San Bernardino.....	1,673	4,012	6,150
San Diego.....	2,637	16,159	17,700
San Francisco.....	233,959	298,997	342,782
San Jose.....	12,567	18,060	21,500
San Luis Obispo.....	2,243	2,995	3,021
San Rafael.....	2,276	3,290	3,879
Santa Ana.....	711	3,628	4,933
Santa Barbara.....	3,460	5,864	6,587
Santa Clara.....	2,416	2,891	3,650
Santa Cruz.....	3,898	5,596	5,659
Santa Monica.....	417	1,580	3,057
Santa Rosa.....	3,616	5,220	6,673
Stockton.....	10,282	14,424	17,506
Vallejo.....	5,987	6,343	7,965
Visalia.....	1,412	2,885	3,085
Watsonville.....	1,799	2,149	3,528
COLORADO.			
Aspen.....		5,108	3,303
Boulder.....	3,069	3,330	6,150
Canon City.....	1,501	2,825	3,775
Central City.....	2,626	2,480	3,114
Colorado Springs.....	4,226	11,140	21,085
Cripple Creek.....			10,147
Denver.....	35,629	106,670	133,859
Durango.....		2,726	3,317
Florence.....			3,728
Fort Collins.....	1,356	2,011	3,054
Grand Junction.....		2,030	3,503
Greeley.....	1,297	2,395	3,023
Leadville.....	14,820	10,384	12,455
Pueblo.....	3,217	24,558	28,157
Salida.....		2,586	3,722
Trinidad.....	2,226	5,523	5,345
Victor.....			4,986
CONNECTICUT.			
Ansonia.....		10,342	12,681
Bridgeport.....	27,643	48,866	70,996
Bristol.....	5,347	7,374	6,268
Danbury.....	11,666	16,552	16,537
Derby.....	11,650	5,969	7,930
Enfield.....	6,775	7,199	6,699
Greenwich.....	7,892	10,131	12,172
Groton.....	5,128	5,539	5,962
Hartford.....	42,015	53,230	79,850
Killingly.....	6,921	7,027	6,835
Manchester.....	6,462	8,222	10,601
Meriden.....	15,540	21,652	24,296
Middletown.....	6,826	9,013	9,589
Naugatuck.....	4,274	6,213	10,541
New Britain.....	11,800	16,519	25,998
New Haven.....	62,882	81,298	108,027
New London.....	10,537	13,759	17,548
Norwalk.....	13,956	17,739	6,125
Norwich.....	15,112	16,156	17,251

CITIES.	1880.	1890.	1900.
Plainfield.....	4,021	4,582	4,821
Portland.....	4,157	4,687	3,856
Putnam.....	5,827	6,511	6,667
Rockville.....	.....	7,772	7,287
Southington.....	5,411	5,499	3,411
South Norwalk.....	.....	.....	6,591
Stafford Springs.....	4,455	4,535	4,297
Stamford.....	11,297	15,685	15,997
Stonington.....	7,355	7,184	2,278
Stratford.....	4,251	2,608	3,657
Thompson.....	5,051	5,580	6,442
Thomaston.....	.....	3,278	3,300
Torrington.....	3,327	6,283	8,360
Vernon.....	6,915	8,808	8,483
Wallingford.....	4,686	4,230	6,737
Waterbury.....	17,806	28,646	45,859
West Haven.....	.....	.....	5,247
Willimantic.....	6,608	8,648	8,937
Winchester.....	5,142	6,183	7,763
Winsted.....	.....	4,846	6,804
DELAWARE.			
Dover.....	2,811	3,061	3,329
Newcastle.....	3,700	4,010	3,380
Wilmington.....	42,678	61,431	76,508
DISTRICT OF COLUMBIA.			
Georgetown.....	12,578	.....	14,549
Washington.....	147,293	229,796	218,196
FLORIDA.			
Apalachicola.....	1,336	1,727	3,077
Fernandina.....	2,562	2,803	3,245
Gainesville.....	.....	2,790	3,633
Jacksonville.....	7,650	17,201	28,429
Key West.....	9,890	18,080	17,114
Lake City.....	.....	2,020	4,013
Ocala.....	803	2,904	3,380
Palatka.....	1,616	3,039	3,301
Pensacola.....	6,845	11,750	17,747
St. Augustine.....	2,293	4,742	4,272
Tampa.....	720	5,532	15,839
GEORGIA.			
Albany.....	3,216	4,008	4,606
Americus.....	3,635	6,398	7,674
Athens.....	6,099	8,639	10,245
Atlanta.....	37,409	65,533	89,872
Augusta.....	21,891	33,300	39,441
Barnesville.....	1,962	1,839	3,036
Brunswick.....	2,891	8,459	9,081
Cartersville.....	2,037	3,171	3,135
Columbus.....	10,123	18,303	17,614
Cordele.....	.....	1,578	3,473
Dalton.....	2,516	3,046	4,315
Elberton.....	927	1,572	3,884
Gainesville.....	1,919	3,202	4,382
Griffin.....	3,620	4,503	6,857
La Grange.....	2,295	3,090	4,274
Macon.....	12,749	22,746	28,272
Marietta.....	2,227	3,384	4,446
Milledgeville.....	3,800	3,322	4,219
Newnan.....	2,006	2,859	3,654

CITIES.	1880.	1890.	1900.
Rome.....	3,877	6,957	7,291
Savannah.....	30,709	43,189	54,244
Summerville.....			3,245
Thomasville.....	2,555	5,514	5,322
Valdosta.....	1,515	2,854	5,613
Washington.....	2,199	2,631	3,300
Waycross.....	628	3,364	5,919
IDAHO.			
Boise.....	1,899	2,311	5,957
Pocatello.....			4,046
ILLINOIS.			
Alton.....	8,975	10,294	14,210
Aurora.....	11,873	19,634	24,147
Batavia.....	2,639	3,613	3,871
Beardstown.....	3,135	4,226	4,827
Belleville.....	10,683	15,361	17,484
Belvidere.....	2,951	3,867	6,937
Bloomington.....	17,180	20,484	23,286
Blue Island.....	1,542	3,329	6,114
Braidwood.....	5,524	4,641	3,279
Cairo.....	9,011	10,324	12,566
Canton.....	3,762	5,604	6,564
Carbondale.....	2,213	2,382	3,818
Carlinville.....	2,887	3,293	3,502
Centralia.....	3,621	4,763	6,721
Champaign.....	5,103	5,839	9,098
Charleston.....	2,867	4,135	5,488
Chicago.....	503,185	1,099,850	1,698,575
Chicago Heights.....			5,100
Clinton.....	2,709	2,598	4,452
Collinsville.....	2,887	3,498	4,021
Danville.....	7,733	11,491	16,354
Decatur.....	9,547	16,841	20,754
Dekalb.....	1,598	2,579	5,904
Dixon.....	3,658	5,161	7,917
Duquoin.....	2,807	4,052	4,853
East St. Louis.....	9,185	15,169	29,655
Edwardsville.....	2,887	3,561	4,157
Effingham.....	3,065	3,260	3,774
Elgin.....	8,787	17,823	22,433
Evanston.....			19,259
Freeport.....	8,516	10,189	13,258
Galena.....	6,451	6,635	5,005
Galesburg.....	11,437	15,264	18,607
Geneseo.....	3,518	3,182	3,356
Granite.....			3,122
Harlem.....			4,085
Harvey.....			5,395
Havana.....	2,118	2,525	3,268
Hoopeston.....	1,272	1,911	3,823
Jacksonville.....	10,927	12,935	15,078
Jerseyville.....	2,894	3,207	3,517
Joliet.....	11,657	23,264	29,353
Kankakee.....	5,651	9,025	13,595
Kewanee.....	2,704	4,569	8,382
Lagrange.....	531	2,314	3,969
La Salle.....	7,847	9,855	10,446
Lincoln.....	5,639	6,725	8,962
Litchfield.....	4,326	5,811	5,918
Macomb.....	3,140	4,052	5,875

CITIES.	1880.	1890.	1900.
Mattoon.....	5,737	6,833	9,622
Maywood.....			4,532
Mendota.....	4,142	3,542	3,736
Metropolis.....	2,668	3,573	4,069
Moline.....	7,800	12,000	17,248
Monmouth.....	5,000	5,936	7,460
Morris.....	3,486	3,653	4,273
Mount Carmel.....	2,047	3,376	4,311
Mount Vernon.....	2,324	3,233	5,216
Murphysboro.....	2,196	3,880	6,463
Naperville.....		2,216	2,629
Normal.....	2,470	3,459	3,795
Olney.....	3,512	3,831	4,260
Ottawa.....	7,834	9,985	10,588
Pana.....	3,009	5,077	5,530
Paris.....	4,373	4,996	6,105
Paxton.....	1,725	2,187	3,086
Pekin.....	5,993	6,347	8,420
Peoria.....	29,259	41,024	56,100
Peru.....	4,632	5,550	6,863
Pontiac.....	2,242	2,784	4,266
Princeton.....	3,439	3,396	4,023
Quincy.....	27,268	31,494	36,252
Rockford.....	13,129	23,584	31,051
Rock Island.....	11,659	13,634	19,493
Savanna.....	1,000	3,097	3,325
Shelbyville.....	2,939	3,162	3,546
Springfield.....	19,743	24,963	34,159
Spring Valley.....		3,837	6,214
Sterling.....	5,087	5,824	6,309
Streator.....	5,157	11,414	14,079
Sycamore.....	3,028	2,987	3,653
Taylorville.....	2,237	2,829	4,248
Urbana.....	2,942	3,511	5,728
Waukegan.....	4,012	4,915	9,426
INDIANA.			
Alexandria.....		715	7,221
Anderson.....	4,126	10,741	20,178
Attica.....	2,150	2,320	3,005
Auburn.....	1,542	2,415	3,396
Aurora.....	4,435	3,929	3,645
Bedford.....	2,198	3,351	6,115
Bloomington.....	2,756	4,018	6,460
Bluffton.....	2,354	3,589	4,479
Brazil.....	3,441	5,905	7,786
Columbia City.....	2,244	3,027	2,975
Columbus.....	4,813	6,709	8,130
Connersville.....	3,228	4,548	6,836
Crawfordsville.....	5,251	6,086	6,649
Decatur.....	1,905	3,142	4,142
Dunkirk.....	662	1,024	3,187
East Chicago.....		1,255	3,411
Elkhart.....	6,953	11,360	15,184
Elwood.....	751	2,284	12,950
Evansville.....	29,280	50,756	59,007
Fairmount.....	563	1,462	3,205
Fort Wayne.....	26,880	35,393	45,115
Frankfort.....	2,803	5,919	7,100
Franklin.....	3,116	3,781	4,005
Garrett.....	1,268	2,767	3,910

CITIES.	1880.	1890.	1900.
Gas City.....		145	3,622
Goshen.....	4,123	6,033	7,810
Greencastle.....	3,624	4,390	3,661
Greenfield.....	2,013	3,100	4,489
Greensburg.....	3,138	3,596	5,034
Hammond.....	699	5,428	12,376
Hartford City.....	1,470	2,287	5,912
Huntington.....	3,863	7,328	9,491
Indianapolis.....	75,056	105,436	169,164
Jeffersonville.....	9,357	10,666	10,774
Kendallville.....	2,373	2,960	3,354
Kokomo.....	4,042	8,261	10,609
Lafayette.....	14,860	16,243	18,116
Laporte.....	6,195	7,126	7,113
Lawrenceburg..	4,668	4,284	4,326
Lebanon.....	2,625	3,682	4,465
Linton.....		958	3,071
Logansport.....	11,198	13,328	16,204
Madison.....	8,945	8,936	7,835
Marion.....	1,125	8,769	17,337
Martinsville.....	1,943	2,680	4,038
Michigan City.....	7,366	10,776	14,850
Mishawaka.....	2,640	3,371	5,560
Montpelier.....		808	3,405
Mount Vernon.....	3,730	4,705	5,132
Muncie.....	5,219	11,345	20,942
New Albany.....	16,423	21,059	20,628
Newcastle.....	2,299	2,697	3,406
Noblesville.....	2,221	3,054	4,792
Peru.....	5,280	6,728	8,463
Plymouth.....	2,579	2,723	3,656
Portland.....	1,694	3,725	4,798
Princeton.....	2,566	3,076	6,041
Richmond.....	12,742	16,608	18,226
Rochester.....	1,869	2,467	3,421
Rushville.....	2,515	3,475	4,541
Seymour.....	4,250	5,337	6,445
Shelbyville.....	3,745	5,451	7,169
South Bend.....	13,280	21,819	35,999
Sullivan.....	2,160	2,222	3,118
Terre Haute.....	26,042	30,217	36,673
Tipton.....	1,250	2,697	3,764
Valparaiso.....	4,461	5,090	6,280
Vincennes.....	7,680	8,853	10,249
Wabash.....	3,800	5,105	8,618
Warsaw.....	3,123	3,574	3,987
Washington.....	4,323	6,064	8,551
Whiting.....	115	1,408	3,983
Winchester.....	1,958	3,014	3,705
INDIAN TERRITORY.			
Ardmore.....			5,681
Chickasha.....			3,209
Muscogee.....			4,254
South McAlester.....			3,479
IOWA.			
Atlantic.....	3,662	4,351	5,046
Belle Plaine.....	1,689	2,623	3,283
Boone.....	3,330	6,520	8,880
Burlington.....	19,450	22,565	23,201
Cedar Falls.....	3,020	3,459	5,319

CITIES.	1880.	1890.	1900.
Cedar Rapids.....	10,104	18,020	25,656
Centerville.....	2,475	3,668	5,256
Chariton.....	2,977	3,122	3,989
Charles.....	2,421	2,802	4,227
Cherokee.....	1,523	3,441	3,865
Clarinda.....	2,011	3,262	3,276
Clinton.....	9,052	13,619	22,698
Council Bluffs.....	18,063	21,474	25,802
Creston.....	5,081	7,200	7,752
Davenport.....	21,831	26,872	35,254
Decorah.....	2,951	2,801	3,240
Des Moines.....	22,408	50,093	62,139
Dubuque.....	22,254	30,311	36,297
Eagle Grove.....	.....	1,881	3,557
Estherville.....	138	1,475	3,237
Fairfield.....	3,086	3,391	4,689
Fort Dodge.....	3,586	4,871	12,162
Fort Madison.....	4,679	7,901	9,278
Glenwood.....	1,793	1,890	3,048
Grinnell.....	2,415	3,332	3,860
Independence.....	3,128	4,120	3,656
Indianola.....	2,146	2,254	3,261
Iowa City.....	7,123	5,016	7,987
Keokuk.....	12,117	14,101	14,641
Knoxville.....	2,577	2,632	3,131
Lemars.....	1,895	4,036	4,146
Maquoketa.....	2,467	3,077	3,777
Marion.....	1,939	3,094	4,102
Marshalltown.....	6,240	8,914	11,544
Mason.....	2,510	4,007	6,746
Missouri Valley.....	1,154	2,797	4,010
Mount Pleasant.....	4,410	4,997	4,109
Muscatine.....	8,295	11,454	14,073
Newton.....	2,607	2,564	3,682
Oelwein.....	.....	830	5,142
Oskaloosa.....	4,598	6,558	9,212
Ottumwa.....	9,004	14,001	18,197
Perry.....	952	2,880	3,986
Red Oak.....	3,755	3,321	4,355
Shenandoah.....	1,387	2,440	3,573
Sioux City.....	7,366	37,806	33,111
Spencer.....	824	1,813	3,095
Vinton.....	2,906	2,865	3,499
Washington.....	2,949	3,235	4,255
Waterloo.....	5,630	6,674	12,580
Waverly.....	2,345	2,346	3,177
Webster.....	1,848	2,829	4,613
Winterset.....	2,583	2,281	3,039
KANSAS.			
Abilene.....	2,360	3,547	3,507
Argentine.....	.....	4,732	5,878
Arkansas.....	1,012	8,347	6,146
Atchison.....	15,105	13,963	15,722
Chanute.....	887	2,826	4,208
Cherryvale.....	690	2,104	3,472
Clay Center.....	1,753	2,802	3,069
Coffeyville.....	753	2,282	4,853
Concordia.....	1,853	3,184	3,401
Eldorado.....	1,411	3,339	3,466
Emporia.....	4,631	7,551	8,223

CITIES.	1880.	1890.	1900.
Fort Scott.....	5,372	11,946	10,322
Galena.....	1,463	2,496	10,155
Holton.....		2,727	3,082
Horton.....		3,316	3,398
Hutchinson.....	1,540	8,682	9,379
Independence.....	2,915	3,127	4,851
Iola.....	1,096	1,706	5,791
Junction.....	2,684	4,502	4,695
Kansas City.....	3,200	38,316	51,418
Lawrence.....	8,510	9,997	10,862
Leavenworth.....	16,546	21,768	20,735
Manhattan.....	2,105	3,004	3,438
Newton.....	2,601	5,605	6,208
Olathe.....	2,285	3,294	3,451
Osawatomie.....	681	2,662	4,191
Ottawa.....	4,032	6,248	6,934
Paola.....	2,312	2,943	3,144
Parsons.....	4,199	6,736	7,682
Pittsburg.....	624	6,697	10,112
Rosedale.....	962	2,276	3,270
Salina.....	3,111	6,149	6,074
Topeka.....	15,452	31,007	33,608
Wellington.....	2,694	4,391	4,245
Wichita.....	4,911	23,853	24,671
Winfield.....	2,844	5,184	5,554
Wyandotte.....			3,343
KENTUCKY.			
Ashland.....	3,280	4,195	6,800
Bellevue.....	1,460	3,163	6,332
Bowling Green.....	5,114	7,803	8,226
Catlettsburg.....	1,225	1,374	3,081
Covington.....	20,720	37,371	42,938
Cynthiana.....	2,101	3,016	3,257
Danville.....	3,074	3,766	4,285
Dayton.....	3,210	4,264	6,104
Earlington.....	907	1,748	3,012
Frankfort.....	6,958	7,892	9,487
Georgetown.....			3,823
Henderson.....	5,365	8,835	10,272
Hopkinsville.....	4,229	5,833	7,280
Lebanon.....	2,054	2,816	3,043
Lexington.....	16,656	21,567	26,369
Louisville.....	123,758	161,129	204,731
Ludlow.....		2,469	3,334
Madisonville.....	1,544	2,212	3,628
Mayfield.....	1,839	2,909	4,081
Maysville.....	5,220	5,358	6,423
Middleboro.....		3,271	4,162
Mount Sterling.....	2,087	3,629	3,561
Newport.....	20,433	24,918	28,301
Owensboro.....	6,231	9,837	13,189
Paducah.....	8,036	12,797	19,446
Paris.....	3,204	4,218	4,603
Richmond.....	2,909	5,073	4,653
Shelbyville.....	2,393	2,679	3,016
Somerset.....		2,625	3,384
Winchester.....	2,277	4,519	5,964
LOUISIANA.			
Alexandria.....	1,800	2,861	5,648
Baton Rouge.....	7,197	10,478	11,269

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CITIES.	1880.	1890.	1900.
Crowley		428	4,214
Donaldsonville	2,600	3,121	4,105
Houma	1,084	1,280	3,212
Lafayette		2,106	3,314
Lake Charles	838	3,442	6,680
Monroe	2,070	3,256	5,428
New Iberia	2,709	3,447	6,815
New Orleans	216,090	242,039	287,104
Plaquemine	2,061	3,222	3,590
Shreveport	8,009	11,979	16,013
Thibodeaux	1,515	2,078	32,513
MAINE.			
Auburn	9,555	11,250	12,951
Augusta	8,665	10,527	11,683
Bangor	16,856	19,103	21,850
Bath	7,874	8,723	10,477
Belfast	5,308	5,294	4,615
Biddeford	12,651	14,443	16,145
Brewer		4,193	4,835
Brunswick	5,384	6,012	6,806
Calais	6,173	7,290	7,655
Camden	4,386	4,621	2,825
Caribou	2,756	4,087	4,758
Chelsea	1,537	2,356	3,092
Eden	1,629	1,946	4,379
Eastport	4,006	4,908	5,311
Ellsworth	5,052	4,804	4,297
Fairfield	3,044	2,130	2,238
Farmington	3,353	3,207	3,288
Fort Fairfield	2,807	3,526	4,181
Gardiner	4,439	5,491	5,501
Houlton	3,228	4,015	4,686
Kennebunk	2,852	3,172	3,228
Lewiston	19,083	21,701	23,761
Lisbon	2,641	3,120	3,603
Lubec	2,109	2,069	3,005
Orono	2,245	2,790	3,257
Paris	2,931	3,156	3,225
Portland	33,810	36,425	50,145
Presque	1,305	3,046	3,804
Rockland	7,599	8,174	8,150
Rumford		898	3,770
Saco	6,389	6,075	6,122
Sanford	2,734	4,201	6,078
Skowhegan	3,860		4,266
South Berwick	2,677	3,434	3,188
Waldoboro	3,758	3,505	3,145
Waterville	4,672	7,107	9,477
Westbrook		6,632	7,283
MARYLAND.			
Annapolis	6,642	7,604	8,402
Baltimore	332,313	434,439	508,957
Cambridge	2,262	4,192	5,747
Chestertown	2,359	2,632	3,008
Crisfield	986	1,565	3,165
Cumberland	10,693	12,729	17,128
Easton	3,005	2,939	3,074
Frederick	8,659	8,193	9,296
Frostburg		3,804	5,274
Hagerstown	6,627	10,112	13,591

CITIES.	1880.	1890.	1900.
Hayre de Grace.....	2,816	3,244	3,423
Salisbury.....	2,581	2,905	4,277
Westminster.....	2,507	2,903	3,199
MASSACHUSETTS.			
Abington.....	3,697	4,260	4,489
Adams.....	5,591	9,213	11,134
Amesbury.....	3,355	9,798	9,473
Amherst.....	4,298	4,512	5,028
Andover.....	5,169	6,142	6,813
Arlington.....	4,100	5,629	8,603
Athol.....	4,307	6,319	7,061
Attleboro.....	11,111	7,577	11,335
Barnstable.....	4,242	4,023	4,364
Belmont.....	1,615	2,098	3,929
Beverly.....	8,456	10,821	13,884
Blackstone.....	4,907	6,138	5,721
Boston.....	362,839	448,477	560,892
Braintree.....	3,855	4,848	5,981
Bridgewater.....	3,620	4,249	5,806
Brockton.....	13,608	27,294	40,063
Brookfield.....	2,820	3,352	3,062
Brookline.....	8,057	12,103	19,935
Cambridge.....	52,669	70,028	91,886
Canton.....	4,516	4,538	4,584
Chelmsford.....	2,553	2,695	3,984
Chelsea.....	21,762	27,909	34,072
Chicopee.....	11,286	14,050	19,167
Clinton.....	8,029	10,424	13,667
Concord.....	3,922	4,427	5,652
Dalton.....	2,052	2,885	3,014
Danvers.....	6,593	7,454	8,542
Dartmouth.....	3,430	3,122	2,669
Dedham.....	6,233	7,123	7,457
Dracut.....	1,595	1,996	3,253
Dudley.....	2,803	2,994	3,555
East Bridgewater.....	2,710	2,911	3,025
East Hampton.....	4,206	4,395	5,603
Easton.....	3,902	4,493	4,837
Everett.....	4,159	11,040	24,336
Fairhaven.....	2,875	2,919	3,567
Fall River.....	48,961	74,398	104,863
Falmouth.....	2,422	2,567	3,500
Fitchburg.....	12,429	22,037	31,531
Foxboro.....	2,950	2,933	3,266
Framingham.....	6,235	9,239	11,302
Franklin.....	4,051	4,831	5,017
Gardner.....	4,988	8,424	10,813
Gloucester.....	19,329	24,651	26,121
Grafton.....	4,030	5,002	4,869
Great Barrington.....	4,653	4,612	5,854
Greenfield.....	3,903	5,252	7,927
Hardwick.....	2,233	2,922	3,203
Haverhill.....	18,472	27,412	37,175
Hingham.....	4,485	4,564	5,059
Holyoke.....	21,915	35,637	45,712
Hopkinton.....	4,601	4,088	2,623
Hudson.....	3,739	4,670	5,454
Hyde Park.....	7,088	10,193	13,244
Ipswich.....	3,699	4,439	4,658
Lawrence.....	39,151	44,654	62,559
Lee.....	3,939	3,785	3,596

CITIES.	1880.	1890.	1900.
Leicester.....	2,779	3,120	3,416
Leominster.....	5,772	7,269	12,392
Lexington.....	2,460	3,197	3,831
Lowell.....	59,475	77,696	94,969
Ludlow.....	1,526	1,939	3,536
Lynn.....	38,274	55,727	68,513
Malden.....	12,017	22,984	33,664
Mansfield.....	2,765	3,432	4,006
Marblehead.....	7,467	8,202	7,582
Marlboro.....	10,127	13,805	13,609
Maynard.....	2,291	2,700	3,142
Medford.....	7,573	11,079	18,244
Melrose...	4,560	8,519	12,962
Methuen.....	4,392	4,814	7,512
Middleboro.....	5,237	6,065	6,885
Milford.....	9,310	8,780	8,885
Milbury.....	4,741	4,428	4,460
Milton.....	3,206	4,278	6,578
Monson.....	3,758	3,650	3,402
Montague.....	4,875	6,296	6,150
Nantucket.....	3,227	3,268	3,006
Natick.....	8,479	9,118	9,488
Needham.....	5,252	3,035	4,016
New Bedford.....	26,845	40,733	62,442
Newburyport.....	13,538	13,947	14,478
Newton.....	16,995	24,359	33,587
North Adams.....	10,191	16,074	24,200
Northampton.....	12,172	14,990	18,643
North Andover.....	3,217	3,742	4,243
North Attleboro.....	6,727	6,727	7,253
North Bridge.....	4,053	4,603	7,036
North Brookfield.....	4,459	3,871	4,587
Norwood.....	2,345	3,733	5,480
Orange.....	3,169	4,568	5,520
Palmer.....	5,504	6,520	7,801
Peabody.....	9,028	10,158	11,523
Pepperell.....	2,348	3,127	3,701
Pittsfield.....	13,364	17,281	21,766
Plymouth.....	7,093	7,314	9,592
Provincetown.....	4,346	4,642	4,247
Quincy.....	10,570	16,723	23,899
Randolph.....	4,027	3,946	3,993
Reading.....	3,181	4,088	4,969
Revere...	2,263	5,568	10,395
Rockland.....	4,553	5,213	5,327
Rockport.....	3,912	4,087	4,592
Salem.....	27,563	30,801	35,956
Salisbury.....	4,079	1,316	1,558
Saugus.....	2,665	3,673	5,084
Somerville.....	24,933	40,152	61,643
South Bridge.....	6,464	7,655	10,025
South Hadley.....	3,538	4,261	4,528
Spencer.....	7,466	8,747	7,627
Springfield.....	33,340	44,161	62,059
Stoneham.....	4,890	6,155	6,197
Stoughton.....	4,875	4,852	5,442
Sutton.....	3,105	3,180	3,328
Taunton.....	21,213	25,448	31,036
Templeton.....	2,789	2,999	3,489
Tewkesbury.....	2,179	2,515	3,683
Uxbridge.....	3,111	3,408	3,599

CITIES.	1880.	1890.	1900.
Wakefield.....	5,547	6,982	9,290
Walpole.....	2,494	2,604	3,572
Waltham.....	11,712	18,707	23,481
Ware.....	4,317	7,329	8,263
Wareham.....	2,896	3,451	3,432
Warren.....	3,889	4,681	4,417
Watertown.....	5,426	7,073	9,706
Webster.....	5,696	7,031	8,804
Wellesley.....	.....	3,600	5,072
Westboro.....	5,214	5,195	5,400
Westfield.....	7,587	9,805	12,310
West Springfield.....	4,149	5,077	7,105
Weymouth.....	10,570	10,866	11,324
Whitman.....	3,024	4,441	6,155
Williamstown.....	3,394	4,221	5,013
Winchendon.....	3,722	4,390	5,001
Winchester.....	3,802	4,861	7,248
Winthrop.....	1,043	2,726	6,058
Woburn.....	10,931	13,491	14,254
Worcester.....	58,291	84,655	118,421
MICHIGAN.			
Adrian.....	7,849	9,239	9,654
Albion.....	1,191	1,042	4,519
Alpena.....	6,153	11,228	11,802
Ann Arbor.....	8,016	9,509	14,509
Battle Creek.....	7,063	13,090	18,563
Bay City.....	20,693	27,839	27,628
Belding.....	562	1,730	3,282
Benton Harbor.....	1,230	3,692	6,562
Bessemer.....	.....	2,566	3,911
Big Rapids.....	3,552	5,265	4,686
Cadillac.....	2,213	4,455	5,997
Charlotte.....	2,910	3,867	4,092
Cheboygan.....	2,269	6,244	6,489
Coldwater.....	4,681	5,462	6,216
Crystal Falls.....	.....	.....	3,231
Delray.....	.....	.....	4,573
Detroit.....	116,340	205,876	285,704
Dowagiac.....	2,100	2,806	4,131
Escanaba.....	3,026	6,808	9,549
Flint.....	8,409	9,845	13,103
Gladstone.....	.....	1,337	3,380
Grand Haven.....	4,862	4,988	4,743
Grand Rapids.....	32,016	60,278	87,565
Greenville.....	3,144	3,056	3,372
Hancock.....	1,783	1,772	4,050
Hastings.....	2,531	2,972	3,172
Hillsdale.....	3,441	3,920	4,151
Holland.....	2,620	3,928	7,790
Houghton.....	1,438	2,062	3,359
Ionia.....	4,190	4,999	5,209
Iron Mountain.....	.....	8,599	9,242
Ironwood.....	.....	7,745	9,705
Ishpeming.....	6,039	11,184	13,255
Jackson.....	16,105	20,798	25,180
Kalamazoo.....	11,937	17,857	24,404
Lansing.....	8,319	12,630	16,485
Laurium.....	.....	.....	5,643
Ludington.....	4,190	4,999	7,166
Manistee.....	6,930	12,799	14,260
Manistique.....	.....	2,940	4,126

CITIES.	1880.	1890.	1900.
Marine City.....	1,673	3,268	3,829
Marquette.....	4,690	9,096	10,058
Marshall.....	3,795	3,957	4,370
Menominee.....	3,288	10,606	12,818
Monroe.....	4,930	5,246	5,043
Mount Clemens.....	3,057	4,742	6,576
Mount Pleasant.....	1,115	2,701	3,662
Muskegon.....	11,262	22,668	20,818
Negaunee.....	3,931	6,061	6,935
Niles.....	4,197	4,197	4,287
Norway.....			4,170
Owosso.....	2,501	6,544	8,696
Petoskey.....	1,815	2,872	5,285
Pontiac.....	4,509	6,243	9,769
Port Huron.....	8,883	13,519	19,158
Red Jacket.....	2,140	3,070	4,668
Saginaw.....	10,525	46,322	42,349
St. John's.....	2,370	3,127	3,388
St. Joseph.....	2,603	3,733	5,155
Sault Ste. Marie.....	1,947	5,760	10,538
South Haven.....	1,442	1,924	4,000
Three Rivers.....	2,525	3,122	3,550
Traverse City.....	1,897	4,353	9,407
West Bay City.....	6,397	2,910	13,119
Wyandotte.....	3,631	3,798	5,183
Ypsilanti.....	4,984	6,128	7,378
MINNESOTA.			
Albert Lea.....	1,966	3,305	4,500
Anoka.....	2,706	4,264	3,769
Austin.....	2,305	3,901	5,474
Brainerd.....	1,865	5,704	7,524
Cloquet.....		2,530	3,074
Crookston.....	1,227	3,457	5,359
Duluth.....	838	33,115	52,969
Ely.....			3,717
Fairmont.....	541	1,205	3,040
Faribault.....	5,415	6,524	7,868
Fergus Falls.....	1,635	4,050	6,072
Hastings.....	3,809	3,691	3,811
Little Falls.....	508	2,354	5,774
Mankato.....	5,550	8,805	10,599
Minneapolis.....	46,887	164,738	202,718
Moorehead.....		2,088	3,736
New Ulm.....	2,471	5,721	5,432
Northfield.....	2,296	2,659	3,210
Owatonna.....	3,161	3,845	5,561
Red Wing.....	5,876	6,277	7,525
Rochester.....	5,103	5,321	6,843
St. Cloud.....	2,462	6,532	8,663
St. Paul.....	41,473	133,156	163,065
St. Peter.....	3,436	3,671	4,302
Stillwater.....	9,055	11,239	12,318
Two Harbors.....			3,278
Waseca.....	1,708	2,482	3,103
Willmar.....	1,002	1,825	3,409
Winona.....	10,208	18,208	19,714
MISSISSIPPI.			
Aberdeen.....	2,339	3,445	3,434
Biloxi.....	1,540	3,234	5,467
Canton.....	2,131	2,083	3,404

CITIES.	1880.	1890.	1900.
Columbus.....	3,955	4,552	6,484
Corinth.....	2,275	2,111	3,661
Greenville.....	2,191	6,655	7,642
Greenwood.....	308	1,055	3,026
Hattiesburg.....	.....	1,172	4,175
Jackson.....	5,204	6,041	7,816
Laurel.....	.....	.....	3,193
McComb.....	1,982	2,384	4,477
Meridian.....	4,008	10,889	14,050
Natchez.....	7,058	.....	12,210
Vicksburg.....	11,814	13,298	14,834
Water Valley.....	2,220	2,832	3,813
Wesson.....	1,707	3,168	3,279
West Point.....	1,786	2,762	3,193
Yazoo.....	2,542	5,247	4,944
MISSOURI.			
Aurora.....	.....	3,482	6,191
Boonville.....	3,854	4,141	4,377
Brookfield.....	2,264	4,547	5,484
Butler.....	2,162	2,812	3,158
Cape Girardeau.....	3,889	4,297	4,815
Carrollton.....	2,313	3,878	3,854
Carterville.....	433	2,884	4,445
Carthage.....	4,167	7,981	9,416
Chillicothe.....	4,078	5,717	6,905
Clinton.....	2,868	4,737	5,061
Columbia.....	3,326	4,000	5,651
DeSoto.....	1,989	3,960	5,611
Fulton.....	2,409	4,314	4,883
Hannibal.....	11,074	12,857	12,780
Independence.....	3,146	6,380	6,974
Jefferson City.....	5,271	6,742	9,664
Joplin.....	7,038	9,943	26,023
Kansas City.....	55,785	132,716	163,752
Kirksville.....	2,314	3,510	5,966
Lexington.....	3,996	4,537	4,190
Louisiana.....	4,325	5,090	5,131
Macon.....	3,046	3,371	4,068
Marshall.....	2,701	4,297	5,086
Maryville.....	3,485	4,037	4,577
Mexico.....	3,835	4,789	5,099
Moberly.....	6,070	8,215	8,012
Monett.....	.....	1,699	3,115
Nevada.....	1,913	7,262	7,461
Poplar Bluff.....	791	2,187	4,321
Rich Hill.....	.....	4,008	4,053
Richmond.....	1,424	2,855	3,478
St. Charles.....	5,014	6,161	7,982
St. Joseph.....	32,431	52,324	102,979
St. Louis.....	350,518	451,770	575,238
Sedalia.....	9,561	14,068	15,231
Springfield.....	6,522	21,850	23,267
Trenton.....	3,312	5,039	5,396
Warrensburg.....	4,049	4,706	4,724
Washington.....	2,421	2,725	3,015
Webb City.....	1,588	5,043	9,201
MONTANA.			
Anaconda.....	.....	3,975	9,453
Billings.....	.....	836	3,221
Bozeman.....	894	2,143	3,419

CITIES.	1880.	1890.	1900.
Butte.....	3,363	10,723	30,470
Great Falls.....		3,979	14,930
Helena.....	3,624	18,834	10,770
Missoula.....		3,426	4,366
NEBRASKA.			
Beatrice.....	2,447	13,836	7,875
Columbus.....	2,131	3,134	3,522
Fairbury.....	1,251	2,630	3,140
Falls City.....	1,583	2,102	3,022
Fremont.....	3,013	6,747	7,241
Grand Island.....	2,963	7,536	7,554
Hastings.....	2,817	13,584	7,188
Holdrege.....		2,601	3,007
Kearney.....	1,782	8,074	5,634
Lincoln.....	13,003	55,154	40,169
Nebraska City.....	4,183	11,941	7,380
Norfolk.....	547	3,038	3,883
North Platte.....	363	3,055	3,640
Omaha.....	30,518	40,452	102,555
Plattsmouth.....	4,175	8,392	4,964
South Omaha.....		8,062	26,001
York.....	1,259	3,405	5,132
NEVADA.			
Carson City.....	4,229	3,950	2,100
Reno.....	1,302	3,562	4,500
Virginia City.....	10,917	8,511	2,695
NEW HAMPSHIRE.			
Berlin.....	1,144	3,729	8,886
Claremont.....	4,704	5,565	6,498
Concord.....	13,843	17,004	19,632
Dover.....	11,682	12,790	13,207
Franklin.....	3,265	4,085	5,846
Keene.....	6,784	7,446	9,165
Laconia.....	3,790	6,143	8,042
Manchester.....	32,630	44,126	56,987
Nashua.....	13,397	19,311	23,898
Portsmouth.....	9,690	9,827	10,637
Rochester.....	5,784	7,396	8,466
Somersworth.....	5,586	6,207	7,023
NEW JERSEY.			
Asbury Park.....			4,148
Atlantic City.....	5,477	13,055	27,838
Bayonne.....	9,372	19,033	32,722
Bloomfield.....		7,708	9,668
Boonton.....		2,981	3,909
Bordentown.....	4,258	4,232	4,110
Bridgeton.....	8,722	11,402	13,913
Burlington.....	6,090	7,264	7,392
Camden.....	41,659	58,313	75,935
Dover.....			5,938
East Orange.....		13,282	21,506
Elizabeth.....	28,229	37,764	52,130
Englewood.....			6,253
Garfield.....	1,028		3,504
Gloucester.....	5,347	6,564	6,840
Guttenberg.....	1,206	1,947	3,825
Hackensack.....	4,248	6,004	9,443
Hammonton.....	1,776	3,833	3,481
Harrison.....	6,898	8,528	10,596
Hoboken.....	30,999	43,648	59,364

CITIES.	1880.	1890.	1900.
Irvington...			5,255
Jersey City...	120,722	163,987	206,433
Kearney...			10,896
Keyport...		3,411	3,413
Lambertville...	4,183	4,142	4,637
Long Branch...	8,833	7,231	8,872
Madisonborough...	2,469		3,754
Millville...	7,660	10,002	10,583
Montclair...		8,653	13,962
Morristown...	5,418	8,156	11,267
Newark...	136,508	181,518	246,070
New Brunswick...	17,166	18,603	20,006
Newton...	2,513	3,003	4,376
North Plainfield...			5,009
Orange...	13,207	18,844	24,141
Passaic...	6,532	13,028	27,777
Paterson...	51,031	78,347	105,171
Perth Amboy...	4,808	9,512	17,699
Phillipsburg...	7,181	8,644	10,052
Plainfield...	8,125	10,267	15,369
Princeton...	3,422		3,899
Rahway...	6,455	7,105	7,935
Raritan...	2,046	2,556	3,244
Red Bank...	2,684	4,145	5,428
Rutherford...	2,293		4,411
Salem...	5,056	5,516	5,811
Somerville...	3,105	3,861	4,843
South Amboy...	4,330		6,349
South Orange...	2,178	3,106	4,608
Summit...		3,502	5,302
Trenton...	29,910	57,458	73,307
Union...	5,849	10,643	15,187
Vineland...	2,519	3,822	4,370
Washington...	2,834		3,580
West Hoboken...		11,665	23,094
West New York...			5,267
West Orange...		4,358	6,889
Woodbury...	2,298	3,911	4,087
NEW MEXICO.			
Albuquerque...	2,315	3,785	6,238
Las Vegas...		2,385	3,552
Raton...		1,255	3,540
Sante Fe...	6,635	6,185	5,603
NEW YORK.			
Albany...	90,758	94,923	94,151
Albion...		4,586	4,477
Amsterdam...	9,466	17,336	20,929
Auburn...	21,924	25,858	30,345
Ballston Spa...	3,011	3,527	3,923
Batavia...	4,845	7,221	9,180
Bath...	3,183	3,261	4,994
Binghamton...	17,317	35,005	39,647
Brockport...	4,039	3,724	3,398
Buffalo...	155,134	255,664	352,387
Canandaigua...	5,726	5,868	6,151
Canastota...	1,569	2,774	3,030
Catskill...	4,320	4,920	5,484
Cohoes...	19,416	22,509	23,910
Corning...	4,802	8,550	11,061
Cortland...	4,050	8,590	9,014

CITIES.	1880.	1890.	1900.
Dansville.....	3,625	3,758	3,633
Depew.....			3,379
Dunkirk.....	7,248	9,416	11,616
Elmira.....	20,541	30,893	35,672
Fishkill Landing.....	2,503	3,617	3,673
Fort Edward.....			3,521
Fredonia.....	2,692	3,399	4,127
Fulton.....	3,941	4,214	5,281
Geneva.....	5,878	7,557	10,483
Glens Falls.....	4,900	9,509	12,613
Gloversville.....	7,133	13,864	18,349
Gouverneur.....	2,071	3,458	3,689
Green Island.....	4,160	4,463	4,770
Haverstraw.....	3,506	5,070	5,935
Hempstead.....	2,521	4,831	3,582
Herkimer.....			5,555
Hoosick Falls.....	4,530	7,014	5,671
Hornellsville.....	8,195	10,996	11,918
Hudson.....	8,670	9,970	9,528
Ilion.....	3,711	4,057	5,138
Ithaca.....	9,105	11,079	13,186
Jamestown.....	9,357	16,038	22,892
Johnstown.....	5,013	7,768	10,130
Kingston.....	18,344	21,261	24,535
Lancaster.....	1,602	1,692	3,750
Lansingburg.....	7,432	10,550	12,596
Leroy.....		2,743	3,144
Lestershire.....			3,111
Little Falls.....	6,910	8,783	10,381
Lockport.....	13,522	16,038	16,581
Lyons.....	3,820	4,475	4,300
Malone.....	4,193	4,986	5,935
Mamaroneck.....			4,722
Matteawan.....	4,411	4,278	5,807
Mechanicsville.....	1,265	2,679	4,695
Medina.....	3,632	4,492	4,716
Middletown.....	8,494	11,977	14,522
Mount Vernon.....	4,586	10,830	20,346
Newark.....	2,450	3,698	4,578
Newburg.....	18,049	23,087	24,943
New Rochelle.....		9,057	14,720
Greater New York—			
New York.....	1,206,299	1,513,501	1,850,093
Bronx.....			200,507
Brooklyn.....	599,495	838,547	1,166,582
Richmond.....	38,991	51,693	67,021
Queens.....	90,574	128,059	152,999
Total.....	1,935,359	2,531,800	3,437,202
Niagara Falls.....	3,320	5,502	19,457
North Tarrytown.....	2,684	3,179	4,241
North Tonawanda.....	1,492	4,793	9,069
Norwich.....		5,212	5,766
Nyack.....	3,881	4,111	4,275
Ogdensburg.....	10,341	11,662	12,633
Olean.....	3,036	7,358	9,462
Oneida.....	3,934	6,083	6,364
Oneonta.....	4,461	6,272	7,147
Oswego.....	21,116	21,842	22,199
Owego.....	5,525		5,039
Peeckskill.....	6,893	9,676	10,358

CITIES.	1880.	1890.	1900.
Penn Yan	3,475	4,254	4,650
Plattsburg.....	5,245	7,010	8,434
Port Chester.....	3,254	5,274	7,440
Port Jervis.....	8,678	9,327	9,385
Potsdam	2,762	3,961	3,843
Poughkeepsie.....	20,207	22,206	24,029
Rensselaer .....	.....	7,301	7,466
Rochester.....	89,366	133,896	162,608
Rome	12,194	14,991	15,343
Salamanca.....	2,531	3,692	4,251
Sandy Hill.....	2,487	2,895	4,473
Saratoga Springs	8,421	11,975	12,409
Saugerties	3,923	4,237	3,697
Schenectady	13,655	19,902	31,682
Seneca Falls.....	5,880	6,116	6,519
Sing Sing.....	6,578	9,352	7,939
Solvay.....	.....	563	3,463
Syracuse.....	51,792	88,143	108,374
Tarrytown	3,025	3,562	4,770
Tonawanda.....	3,864	7,145	7,421
Troy.....	56,747	60,956	60,651
Utica	33,914	44,007	56,383
Walden	1,804	2,132	3,147
Wappinger's Falls.....	.....	3,718	3,504
Warsaw.....	1,910	3,120	3,048
Waterford.....	.....	.....	3,146
Waterloo.....	3,893	4,350	4,256
Watertown.....	10,697	14,725	21,696
Watervliet.....	.....	12,967	14,321
Waverly.....	2,767	4,123	4,465
Wellsville.....	2,049	3,435	3,556
Whitehall.....	4,270	4,434	4,377
White Plains.....	2,381	4,042	7,899
Yonkers.....	18,892	32,033	47,931
NORTH CAROLINA.			
Asheville	2,616	10,235	14,694
Burlington.....	817	1,716	3,692
Charlotte.....	7,094	11,557	18,091
Concord	1,264	4,339	7,910
Durham.....	2,041	5,485	6,679
Edenton.....	1,382	2,205	3,046
Elizabeth City.....	2,315	3,251	6,348
Fayetteville.....	3,485	4,222	4,670
Gastonia	236	1,033	4,610
Goldsboro.....	3,286	4,017	5,877
Greensboro.....	2,105	3,317	10,035
Henderson.....	1,421	4,191	3,746
High Point.....	.....	.....	4,163
Kinston.....	1,216	1,726	4,106
Newbern.....	6,443	7,843	9,090
Raleigh.....	9,265	12,678	13,643
Reidsville.....	1,316	2,969	3,262
Salem.....	2,716	.....	3,642
Salisbury.....	2,723	4,418	6,277
Statesville.....	1,062	2,318	3,141
Washington.....	2,462	3,545	4,842
Wilmington.....	17,350	20,056	20,976
Wilson.....	1,475	2,126	3,525
Winston.....	2,854	8,018	10,008

CITIES.	1880.	1890.	1900.
NORTH DAKOTA.			
Bismarck.....	1,758	2,186	3,319
Fargo.....	2,693	5,664	9,589
Grand Forks.....	1,705	4,979	7,652
OHIO.			
Akron.....	16,512	27,601	42,728
Alliance.....	4,636	7,607	8,974
Ashland.....	3,004	3,566	4,087
Ashtabula.....	4,445	8,338	12,949
Athens.....	2,457	2,620	3,066
Barberton.....			4,354
Barnesville.....	2,435	3,207	3,721
Bellaire.....	8,025	9,934	9,912
Bellefontaine.....	3,998	4,245	6,649
Bellevue.....	2,169	3,052	4,101
Bowling Green.....	1,539	3,467	5,067
Bridgeport.....	2,395	3,367	3,963
Bryan.....	2,952	3,068	3,131
Bucyrus.....	3,835	5,974	6,560
Cambridge.....	2,883	4,361	8,241
Canal Dover.....		3,470	5,422
Canton.....	12,258	26,189	30,667
Chillicothe.....	10,938	11,288	12,976
Cincinnati.....	255,139	296,908	325,902
Circleville.....	6,046	6,556	6,991
Cleveland.....	160,146	261,353	381,768
Collinwood.....			3,639
Columbus.....	51,647	88,150	125,560
Conneaut.....	1,256	3,241	7,133
Coshocton.....	3,044	3,672	6,473
Crestline.....	2,848	2,911	3,282
Cuyahoga Falls.....	2,294	2,614	3,186
Dayton.....	38,678	61,220	85,333
Defiance.....	5,907	7,694	7,579
Delaware.....	6,894	8,224	7,946
Delphos.....	3,814	4,516	4,517
Dennison.....	1,518	2,925	3,763
East Liverpool.....	5,568	10,956	16,485
Eaton.....	2,143	2,934	3,155
Elyria.....	4,777	5,611	8,791
Findlay.....	4,633	18,553	17,613
Fostoria.....	3,569	7,070	7,730
Fremont.....	8,446	7,141	8,439
Galion.....	5,635	6,326	7,282
Gallipolis.....	4,400	4,550	5,432
Glenville.....			5,588
Greenfield.....	2,104	2,460	3,979
Greenville.....	3,535	5,473	5,501
Hamilton.....	12,122	17,565	23,914
Hillsboro.....	3,234	3,620	4,535
Ironton.....	8,857	10,939	11,868
Jackson.....	3,021	4,320	4,672
Kent.....	3,309	3,501	4,541
Kenton.....	3,940	5,557	6,852
Lakewood.....			3,355
Lancaster.....	6,803	7,555	8,991
Lima.....	7,567	15,981	21,723
Lisbon.....		2,278	3,330
Logan.....	2,666	3,119	3,480
London.....	3,067	3,313	3,511
Lorain.....	1,595	4,863	16,028

CITIES.	1880.	1890.	1900.
Madisonville	1,274	2,214	3,140
Mansfield	9,859	13,473	17,640
Marietta	5,444	8,273	13,348
Marion	3,899	8,327	11,862
Martin's Ferry	3,819	6,250	7,760
Marysville	2,061	2,810	3,048
Massillon	6,836	10,092	11,944
Miamisburg	1,936	2,952	3,941
Middletown	4,538	7,681	9,215
Mount Vernon	5,249	6,016	6,633
Napoleon	3,032	2,764	3,639
Nelsonville	3,095	4,558	5,421
Newark	9,600	14,270	18,157
Newburg			5,909
New Philadelphia	3,070	4,456	6,213
Niles	3,879	4,289	7,468
North Baltimore	701	2,857	3,561
Norwalk	5,704	7,195	7,074
Norwood			4,865
Oberlin	3,242	4,376	4,082
Painesville	3,841	4,755	5,024
Piqua	6,301	9,090	12,172
Pomeroy	5,560	4,726	4,639
Portsmouth	11,321	12,394	17,870
Ravenna	3,255	3,417	4,003
Reading			3,076
St. Bernard	1,779		3,384
St. Mary	1,745	3,000	5,559
Salem	4,041	5,780	7,582
Sandusky	15,838	18,471	19,664
Shelby	1,871	1,977	4,685
Sidney	3,823	4,903	5,688
Springfield	20,730	31,895	38,253
Steubenville	12,093	13,394	14,394
Tiffin	7,879	10,801	10,989
Toledo	50,137	81,434	131,822
Toronto		2,536	3,526
Troy	3,803	4,494	5,881
Uhrichsville	2,790	3,842	4,582
Upper Sandusky	3,540	3,572	3,355
Urbana	6,252	6,510	6,808
Van Wert	4,079	5,512	6,423
Wapakoneta	2,765	3,616	3,915
Warren	4,428	5,973	8,529
Washington	3,798	5,742	5,751
Wellston	952	4,377	8,045
Wellsville	3,377	5,247	6,146
Wilmington	2,745	3,079	3,613
Wooster	5,840	5,901	6,063
Youngstown	15,435	33,220	44,885
Xenia	7,026	7,301	8,696
Zanesville	18,113	21,009	23,538
OKLAHOMA.			
El Reno		285	3,383
Enid City			3,444
Guthrie		5,333	10,006
Oklahoma		4,151	10,037
Perry			3,351
Shawnee			3,462

CITIES.	1880.	1890.	1900.
OREGON.			
Albana.....	143	3,079	3,149
Astoria.....	2,803	6,184	8,381
Baker City.....	1,258	2,604	6,663
Eugene.....	1,117	3,958	3,236
Oregon City.....	1,263	3,062	3,494
Pendleton.....	730	2,506	4,406
Portland.....	17,577	46,385	90,426
Salem.....			4,258
The Dalles.....	2,232	3,029	3,542
PENNSYLVANIA.			
Allegheny.....	78,682	105,287	129,896
Allentown.....	18,063	25,228	35,416
Altoona.....	19,710	30,337	38,973
Archbald.....	3,049	4,032	5,396
Ashland.....	6,052	7,346	6,438
Ashley.....	2,799	3,192	4,046
Athens.....	1,592	3,274	3,749
Avoca.....	1,913	3,031	3,487
Bangor.....	1,328	2,509	4,106
Beaver Falls.....	5,104	9,735	10,054
Bellefonte.....	3,026	3,946	4,216
Bellevue.....	915	1,418	3,416
Berwick.....	2,095	2,701	3,916
Bethlehem.....	5,193	6,762	7,293
Blairsville.....	1,162	3,126	3,386
Blakely.....	871	2,452	3,915
Bloomsburg.....	3,702	4,635	6,170
Braddock.....	3,310	8,561	15,654
Bradford.....	9,197	10,514	15,029
Bridgeport.....	1,802	2,625	3,097
Bristol.....	5,273	6,553	7,104
Butler.....	3,163	8,733	10,853
Carbondale.....	7,714	10,833	13,536
Carlisle.....	6,209	7,620	9,626
Carnegie.....			7,330
Catasauqua.....	3,065	3,704	3,963
Chambersburg.....	6,808	7,863	8,864
Charlevoix.....			5,930
Chester.....	14,997	20,226	33,988
Clearfield.....	1,809	2,248	5,081
Coatesville.....	2,766	3,680	5,721
Columbia.....	8,312	10,599	12,316
Connellsville.....	3,609	5,629	7,160
Conshohocken.....	4,561	5,470	5,762
Corry.....	5,277	5,677	5,369
Coudersport.....		1,530	3,217
Danville.....	8,346	9,073	8,042
Darby.....	1,779	2,998	3,429
Dickson City.....	838	3,110	4,948
Doylestown.....	2,070	2,519	3,034
Dubois.....	2,718	6,149	9,375
Dunmore.....	5,151	8,315	12,583
Duquesne.....			9,036
East Mauch Chunk.....	1,853	2,772	3,458
Easton.....	11,924	14,481	25,238
Edwardsville.....		3,284	5,165
Elliott.....			3,345
Erie.....	27,737	40,634	52,733
Etna.....	2,334	3,767	5,384
Forest City.....		2,319	4,279

CITIES.	1880.	1890.	1900.
Franklin...	5,010	6,221	7,317
Freeland...	624	1,730	5,254
Gettysburg...	2,814	3,221	3,495
Gilberton...	3,098	3,687	4,373
Girardville...	2,730	3,584	3,666
Greensburg...	2,500	4,204	6,508
Greenville...	3,007	3,674	4,814
Hanover...	2,317	3,746	5,302
Harrisburg...	30,762	39,385	50,167
Hazleton...	6,935	11,872	14,230
Homestead...	592	7,911	12,554
Huntingdon...	4,125	5,729	6,053
Indiana...	1,907	1,963	4,142
Jeanette...		3,296	5,865
Jersey Shore...	1,411	1,853	3,070
Johnsonburg...		1,280	3,894
Johnstown...	8,380	21,805	35,936
Kane...		2,944	5,296
Kingston...	1,418	2,381	3,846
Kittanning...	2,624	3,095	3,902
Knoxville...	393	1,723	3,511
Lancaster...	25,769	32,011	41,459
Lansford...	2,206	4,004	4,888
Latrobe...	1,815	3,589	4,614
Lebanon...	8,778	14,664	17,628
Lehighton...	1,937	2,959	4,629
Lewisburg...	3,080	3,248	3,457
Lewistown...	3,222	3,273	4,451
Lock Haven...	5,845	7,358	7,210
Luzerne...		2,398	3,817
McKeesport...	8,212	20,741	34,227
McKee's Rocks...		1,687	6,352
Mahanoy City...	7,181	11,265	13,504
Mauch Chunk...	3,752	4,091	4,029
Meadville...	8,860	9,520	10,291
Mechanicsburg...	3,018	3,690	3,841
Media...	1,919	2,735	3,075
Meyersdale...	1,423	1,847	3,024
Middletown...	3,351	5,080	5,608
Millville...	1,824	3,809	6,736
Milton...	2,102	5,317	6,175
Minersville...	3,249	3,504	4,815
Monongahela...	2,904	4,096	5,173
Mount Carmel...	2,378	8,254	13,179
Mount Pleasant...	1,197	3,652	4,745
Nanticoke...	3,884	10,044	12,116
New Brighton...	3,653	5,616	6,820
Newcastle...	8,418	11,600	28,339
New Kensington...			4,665
Norristown...	13,063	19,791	22,265
North Braddock...			6,535
Oil City...	7,315	10,932	13,364
Old Forge...			5,630
Olyphant...	2,094	4,083	6,180
Philadelphia...	847,170	1,046,964	1,293,697
Philipsburg...	1,779	3,245	3,266
Phoenixville...	6,682	8,514	9,196
Pittsburg...	156,389	238,617	321,616
Pittston...	7,472	10,302	12,556
Plymouth...	6,065	9,344	13,649
Pottstown...	5,305	13,285	13,696

CITIES.	1880.	1890.	1900.
Pottsville.....	13,253	14,117	15,710
Punxsutawney.....	674	2,792	4,375
Quakertown.....	1,769	2,169	3,014
Rankin.....			3,775
Reading.....	43,278	58,661	78,961
Reno.....	3,708	4,154	4,082
Reynoldsville.....	1,410	2,789	3,435
Ridgway.....	1,100	1,903	3,515
Rochester.....	2,552	3,649	4,688
St. Clair.....	4,149	3,680	4,638
St. Mary.....	1,501	1,745	4,295
Sayre.....			5,243
Schuylkill Haven.....	3,052	3,088	3,654
Scottdale.....	1,275	2,693	4,261
Scranton.....	45,850	75,215	102,026
Sewickley.....	2,053	2,776	3,568
Shamokin.....	8,184	14,403	18,202
Sharon.....	5,684	7,459	8,916
Sharpsburg.....	3,466	4,898	6,842
Shenandoah.....	10,147	15,944	20,321
Shippensburg.....	2,213	2,188	3,228
Slatington.....	1,634	2,716	3,773
South Bethlehem.....	4,925	10,302	13,241
South Williamsport.....		2,900	3,328
Steelton.....	2,447	9,250	12,086
Stroudsburg.....	1,860	2,419	3,450
Sunbury.....	4,077	5,930	9,810
Susquehanna Depot.....	3,467	3,872	3,813
Tamaqua.....	5,730	6,054	7,267
Tarentum.....	1,245	4,627	5,472
Taylor.....			4,215
Titusville.....	9,045	8,073	8,244
Towanda.....	3,814	4,169	4,663
Turtle Creek.....			3,262
Tyrone.....	2,678	4,705	5,847
Union.....	2,171	2,261	3,104
Uniontown.....	3,265	6,359	7,344
Warren.....	2,810	4,333	8,043
Washington.....	4,292	7,063	7,670
Waynesboro.....	1,888	3,811	5,396
West Bethlehem.....	1,414	2,759	3,465
West Chester.....	7,046	8,028	9,524
West Pittston.....	2,544	3,906	5,846
Wilkesbarre.....	23,339	37,718	51,721
Wilkesburg.....	1,529	4,662	11,886
Williamsport.....	18,934	27,132	28,757
Wilmerding.....		419	4,179
Winton.....	905	1,797	3,425
York.....	13,940	20,793	33,708
RHODE ISLAND.			
Bristol.....	6,028	5,478	6,901
Burrillville.....	5,714	5,492	6,317
Central Falls.....			18,167
Coventry.....	4,519	5,068	5,279
Cranston.....	5,940	8,099	13,343
Cumberland.....	6,445	8,090	8,925
East Providence.....	5,056	8,422	12,138
Johnston.....	5,765	9,778	4,305
Lincoln.....	13,765	20,355	8,937
Newport.....	15,693	19,457	22,034

CITIES.	1880.	1890.	1900.
North Kingstown.....	3,949	4,193	4,194
North Providence.....	1,467	2,084	3,016
Pawtucket.....	19,030	27,633	39,231
Providence.....	104,857	132,146	175,597
Scituate.....	3,810	3,174	3,361
South Kingstown.....	5,114	4,823	4,972
Warren.....	4,007	4,489	5,108
Warwick.....	12,164	17,761	21,316
Westerly.....	6,104	6,813	7,541
Woonsocket.....	16,050	20,830	28,204
SOUTH CAROLINA.			
Abbeville.....	1,543	1,696	3,766
Aiken.....	1,817	2,362	3,414
Anderson.....	1,850	3,018	5,498
Beaufort.....	2,549	3,587	4,110
Charleston.....	49,984	54,955	55,807
Chester.....	1,899	2,703	4,075
Columbia.....	10,036	15,353	21,108
Darlington.....	940	2,389	3,028
Florence.....	1,914	3,395	4,647
Gaffney.....	400	1,631	3,937
Georgetown.....	2,557	2,895	4,138
Greenville.....	6,160	8,607	11,860
Greenwood.....	745	1,326	4,824
Laurens.....	752	2,245	4,029
Newbury.....	2,342	3,020	4,607
Orangeburg.....	2,140	2,964	4,455
Rock Hill.....	809	2,745	5,485
Spartanburg.....	3,253	5,544	11,395
Sumter.....	2,011	3,865	5,673
Union.....	1,267	1,609	5,400
SOUTH DAKOTA.			
Aberdeen.....		3,182	4,087
Deadwood.....		2,366	3,498
Lead City.....	1,437	2,581	6,210
Mitchell.....		2,217	4,055
Sioux Falls.....	2,164	10,177	10,266
Watertown.....	746	2,672	3,352
Yankton.....	3,431	3,670	4,125
TENNESSEE.			
Bristol.....	1,647	3,324	5,271
Chattanooga.....	12,892	29,100	30,154
Clarksville.....	3,880	7,924	9,431
Cleveland.....	1,874	2,863	3,858
Columbia.....	3,400	5,370	6,052
Dyersburg.....	1,010	2,009	3,647
Harriman.....		716	3,442
Jackson.....	5,377	10,039	14,511
Johnson City.....	685	4,161	4,645
Knoxville.....	9,693	22,535	32,637
Memphis.....	33,592	64,495	102,320
Murfreesboro.....	3,800	3,638	3,999
Nashville.....	43,350	76,168	80,865
Union City.....	1,879	3,441	3,407
TEXAS.			
Abilene.....		3,194	3,411
Austin.....	11,013	14,575	22,258
Beaumont.....		3,296	9,427
Belton.....	1,797	3,000	3,700

CITIES.	1880.	1890.	1900.
Benham.....	1,880	3,861	5,042
Brenham.....	4,101	5,209	5,968
Brownsville.....	4,938	6,134	6,305
Brownwood.....	725	2,176	3,965
Bryan.....	.....	2,979	3,589
Calvert.....	2,280	2,632	3,322
Cameron.....	441	1,608	3,341
Celburne.....	.....	3,278	7,493
Corpus Christi.....	3,257	4,387	4,703
Corsicana.....	3,373	6,285	9,313
Cuero.....	1,333	2,442	3,422
Dallas.....	10,358	38,067	42,638
Denison.....	3,975	10,958	11,807
Denton.....	1,194	2,558	4,187
El Paso.....	736	10,338	15,906
Ennis.....	1,351	2,171	4,919
Fort Worth.....	6,663	20,076	26,688
Gainesville.....	2,667	6,594	7,874
Galveston.....	22,248	29,084	37,789
Gonzales.....	1,581	1,641	4,297
Greenville.....	.....	4,330	6,860
Hillsboro.....	.....	2,541	5,346
Houston.....	16,513	27,557	44,633
Laredo.....	3,521	11,319	13,429
Longview.....	1,525	2,034	3,691
McKinney.....	1,479	2,489	4,342
Marlin.....	.....	2,058	3,092
Marshall.....	5,624	7,207	7,855
Navasota.....	1,611	2,997	3,857
Oak Cliff.....	.....	2,470	3,630
Orange.....	.....	3,173	3,835
Palestine.....	2,997	5,834	8,297
Paris.....	3,980	8,254	9,358
San Antonio.....	20,550	37,673	53,321
Sherman.....	6,093	7,335	10,243
Sulphur Springs.....	1,854	3,038	3,685
Taylor.....	.....	2,584	4,211
Temple.....	.....	4,047	7,065
Terrell.....	2,003	2,988	6,330
Texarkana.....	1,833	2,852	5,256
Tyler.....	2,423	6,908	8,069
Victoria.....	.....	3,046	4,010
Waco.....	7,295	14,445	20,686
Waxahachie.....	1,354	3,076	4,215
Weatherford.....	2,046	3,369	4,786
Yoakum.....	.....	1,745	3,499
UTAH.			
Eureka.....	122	1,733	3,085
Logan.....	3,396	4,565	5,451
Ogden.....	6,069	14,889	16,313
Park.....	1,542	2,850	3,759
Provo.....	3,432	5,159	6,185
Salt Lake City.....	20,768	44,843	53,531
Springville.....	2,312	2,849	3,422
VERMONT.			
Barre.....	2,060	4,146	8,448
Bellows Falls.....	2,229	3,090	4,337
Bennington.....	6,333	6,371	5,656
Brattleboro.....	5,880	5,467	5,297
Burlington.....	11,365	14,590	18,640

CITIES.	1880.	1890.	1900.
Colchester.....	4,421	5,143	5,352
Montpelier.....	8,219	4,160	6,266
Rutland.....	12,149	11,759	11,499
St. Albans.....	7,193	7,771	6,239
St. Johnsbury.....	5,800	3,857	5,666
Winooski.....		3,659	3,783
VIRGINIA.			
Alexandria.....	13,659	14,339	14,528
Berkley.....		3,899	4,988
Bristol.....	1,562	2,902	4,579
Charlottesville.....	2,676	5,591	6,449
Clifton Forge.....		1,792	3,212
Danville.....	7,526	10,305	16,520
Fredericksburg.....	5,010	4,528	5,068
Hampton.....	2,684	2,513	3,441
Harrisonburg.....	2,831	2,792	3,521
Lexington.....	2,771	3,059	3,203
Lynchburg.....	15,959	19,709	18,891
Manchester.....	5,729	9,246	9,715
Newport News.....		4,449	19,635
Norfolk.....	21,966	34,871	46,624
Petersburg.....	21,656	22,680	21,810
Portsmouth.....	11,390	13,268	17,427
Radford.....		2,060	3,344
Richmond.....	63,600	81,338	85,050
Roanoke.....	669	16,129	21,496
Salem.....	1,759	3,279	3,412
Staunton.....	6,664	6,975	7,289
Suffolk.....	1,963	3,354	3,827
Winchester.....	4,958	5,196	5,161
Wytheville.....	1,885	2,570	3,003
WASHINGTON.			
Aberdeen.....		1,638	3,747
Ballard.....		1,173	4,568
Everett.....			7,838
Fairhaven.....		4,076	4,228
New Whatcom.....			6,834
North Yakima.....		1,535	3,154
Olympia.....	1,232	4,698	4,082
Port Townsend.....	917	4,558	3,443
Seattle.....	3,533	42,837	80,671
Spokane.....	350	19,922	36,848
Tacoma.....	1,098	36,006	37,711
Vancouver.....	1,722	3,545	4,006
Walla Walla.....	3,588	4,709	10,049
WEST VIRGINIA.			
Benwood.....		2,934	4,511
Bluefield.....		1,775	4,644
Charleston.....	4,192	6,734	11,099
Clarksburg.....	2,307	3,008	4,050
Fairmont.....	900	1,027	5,655
Grafton.....	3,030	3,159	5,650
Hinton.....	879	2,570	3,763
Huntington.....	3,174	10,084	11,923
Martinsburg.....	6,335	7,207	7,564
Moundsville.....	1,774	2,688	5,362
Parkersburg.....	6,582	8,389	11,703

CITIES.	1880.	1890.	1900.
WISCONSIN.			
Antigo City.....	.....	4,424	5,145
Appleton.....	8,005	11,869	15,085
Ashland.....	951	9,956	13,074
Baraboo.....	4,594	4,605	5,751
Beaver Dam.....	3,416	4,222	5,128
Beloit.....	4,790	6,315	10,436
Berlin.....	3,353	4,149	4,489
Chippewa Falls.....	3,982	8,670	8,094
Depere.....	1,954	3,625	4,038
Eau Claire.....	10,119	17,415	17,517
Fond du Lac.....	13,094	12,024	15,110
Fort Atkinson.....	1,969	2,283	3,043
Greater Grand Rapids.....	1,350	1,702	4,493
Green Bay.....	7,464	9,069	18,684
Hudson.....	2,298	2,885	3,259
Janesville.....	9,018	10,836	13,185
Kaukauna.....	2,235	4,667	5,115
Kenosha.....	5,039	6,532	11,606
La Crosse.....	14,505	25,090	28,895
Madison.....	10,324	13,426	19,164
Manitowoc.....	6,367	7,710	11,786
Marinette.....	5,412	11,523	16,195
Marshfield.....	2,044	3,450	5,240
Menasha.....	.....	4,581	5,589
Menominee.....	4,177	5,491	5,655
Merrill.....	.....	6,809	8,537
Milwaukee.....	115,587	204,468	285,315
Monroe.....	448	3,768	3,927
Neenah.....	4,202	5,083	5,954
Oconto.....	4,171	5,219	5,646
Oshkosh.....	15,748	22,836	28,284
Platteville.....	.....	2,740	3,340
Portage.....	4,346	5,143	5,459
Port Washington.....	2,604	1,659	3,010
Prairie du Chien.....	.....	3,131	3,233
Racine.....	16,031	21,014	29,102
Rhineland.....	1,542	2,658	4,998
Rice Lake.....	454	2,130	3,002
Ripon.....	3,117	3,358	3,818
Sheboygan.....	7,314	16,359	22,962
South Milwaukee.....	.....	.....	3,392
Sparta.....	2,387	2,795	3,555
Stevens' Point.....	4,449	7,896	9,524
Stoughton.....	.....	2,470	3,431
Sturgeon Bay.....	1,199	2,195	3,372
Superior.....	.....	11,983	31,091
Two Rivers.....	2,052	2,870	3,784
Watertown.....	7,883	8,755	8,437
Waukesha.....	4,613	6,321	7,419
Waupun.....	2,313	2,757	3,185
Wausau.....	4,277	9,253	12,354
Whitewater.....	3,617	4,359	3,405
WYOMING.			
Cheyenne.....	.....	11,690	14,087
Laramie.....	.....	6,388	8,207
Rock Springs.....	.....	3,406	4,363

STATES OF THE UNION.

Governor's Terms and Salaries, Areas, Dates of Admission, Thirteen Original States, Population in 1880 and 1890, and Electoral Votes.

States and Territories.	Governor's Term and Salary.	Area Square Miles.	When Admitted.	Population in 1890.	Population in 1900.	No. Elec. Votes.
Alabama.....	2 yrs \$3,500	50,540	1819	1,513,017	1,828,697	11
Arkansas.....	2 3,000	53,045	1836	1,128,179	1,311,564	8
California.....	4 6,000	153,860	1850	1,208,130	1,485,053	9
Colorado.....	2 5,000	103,645	1876	412,198	539,700	4
Connecticut.....	2 4,000	4,990	*1788	746,258	908,355	6
Delaware.....	4 2,000	2,050	*1788	168,493	184,735	3
Florida.....	4 3,500	58,680	1845	391,422	528,542	4
Georgia.....	2 3,000	59,475	*1788	1,837,353	2,216,331	13
Idaho.....	2 3,000	84,800	1890	84,385	161,772	3
Illinois.....	4 6,000	56,650	1818	3,826,351	4,821,550	24
Indiana.....	4 5,000	36,350	1816	2,192,404	2,516,462	15
Iowa.....	2 3,000	56,025	1846	1,911,896	2,231,853	13
Kansas.....	2 3,000	82,080	1861	1,427,096	1,470,495	10
Kentucky.....	4 6,500	40,400	1792	1,858,635	2,147,174	13
Louisiana.....	4 4,000	48,720	1812	1,118,587	1,381,625	8
Maine.....	2 2,500	33,040	1820	661,086	694,466	6
Maryland.....	4 4,500	12,210	*1788	1,042,390	1,190,050	8
Massachusetts.....	1 8,000	8,315	*1788	2,238,943	2,805,346	15
Michigan.....	2 4,000	58,915	1837	2,093,889	2,420,982	14
Minnesota.....	2 5,000	83,365	1858	1,301,826	1,751,394	9
Mississippi.....	4 4,000	46,810	1817	1,289,000	1,551,270	9
Missouri.....	4 5,000	68,735	1821	2,679,184	3,106,665	17
Montana.....	4 5,000	146,080	1889	132,159	243,329	3
Nebraska.....	2 2,500	77,510	1867	1,058,910	1,068,539	8
Nevada.....	4 4,000	110,700	1864	45,761	42,335	3
New Hampshire.....	2 2,000	9,305	*1788	376,560	411,588	4
New Jersey.....	3 10,000	7,815	*1787	1,444,933	1,883,669	10
New York.....	2 10,000	49,170	*1788	5,997,853	7,268,012	36
North Carolina.....	4 3,000	52,250	*1789	1,617,947	1,893,810	11
North Dakota.....	2 3,000	70,795	1889	182,719	819,146	3
Ohio.....	2 8,000	41,060	1802	3,672,316	4,157,545	23
Oregon.....	4 1,500	96,030	1859	313,767	413,536	4
Pennsylvania.....	4 10,000	45,215	*1787	5,258,014	6,302,115	32
Rhode Island.....	1 3,000	1,250	*1790	345,506	428,556	4
South Carolina.....	2 3,000	30,570	*1788	1,151,149	1,340,316	9
South Dakota.....	2 2,500	77,680	1889	328,808	401,570	4
Tennessee.....	2 4,000	42,050	1796	1,767,518	2,020,616	12
Texas.....	2 4,000	265,780	1845	2,235,523	3,048,710	15
Utah.....	5 2,000	84,900	1896	207,905	276,749	3
Vermont.....	2 1,500	9,565	1791	332,422	348,641	4
Virginia.....	4 5,000	42,450	*1788	1,655,980	1,854,184	12
Washington.....	4 4,000	69,180	1889	349,390	518,103	4
West Virginia.....	4 2,700	24,780	1863	762,794	958,800	6
Wisconsin.....	2 5,000	56,040	1848	1,680,880	2,069,042	12
Wyoming.....	4 2,500	97,890	1890	60,705	95,531	3
Alaska.....	4 3,000	531,410	.....	32,052	63,441	..
Arizona.....	4 2,600	113,020	.....	59,620	122,931	..
District of Columbia.....	.....	70	.....	230,392	278,718	..
Indian Territory.....	.....	31,400	.....	180,182	391,960	..
New Mexico.....	4 2,600	122,580	.....	153,593	195,310	..
Oklahoma.....	4 2,600	39,030	.....	61,834	393,245	..
Hawaii.....	.....	.....	.....	89,990	154,001	.....
Total.....	.....	3,557,010	.....	62,824,504	76,218,129	447

*Dates of ratifying constitution of thirteen original states.

NOTE.—All have biennial sessions of legislature except Georgia, Massachusetts, New Jersey, New York, Rhode Island, and South Carolina, where they are held annually.

COMPUTATIONS AT SIGHT.

PRACTICAL RULES AND CONVENIENT TABLES.



SHORT RULES OF ARITHMETIC.

In these short rules, which we have developed and compiled, our aim has been to make them superior to anything that has ever been published. We have endeavored to teach the how, and not the why. Our object is brevity and completeness. Business demands brief and practical rules. To every farmer, teacher, mechanic, merchant, lawyer and laborer, these rules will prove available and valuable knowledge.

How to Multiply by Eleven.

To multiply any two figures by 11, add two figures together and place their sum between the two figures of that number.

Example: $43 \times 11 = 473$, or 4, (4+3,) and 3. If the sum of the two figures exceed 9, the left-hand figure must be increased by 1. Thus $48 \times 11 = 528$.

Lightning Method of Multiplication and Division.

To multiply by 125, divide by 8, and call it thousands, because 125 is $\frac{1}{8}$ of a thousand.

To multiply by $12\frac{1}{2}$, divide by 8; call it hundreds.

To multiply by $1\frac{1}{4}$, divide by 8; call it tens.

To multiply by $62\frac{1}{2}$, divide by 16, and call it thousands.

To multiply by $6\frac{1}{4}$, divide by 16, and call it hundreds.

To multiply by $31\frac{1}{4}$, divide by 32, and call it thousands.

To multiply by $333\frac{1}{3}$, divide by 3, and call it thousands.

To multiply by $33\frac{1}{3}$, divide by 3, and call it hundreds.

To multiply by $3\frac{1}{3}$, divide by 3, and call it tens.

To multiply by 50, divide by 2, and call it hundreds.

To multiply by $66\frac{2}{3}$, divide by 15, and call it thousands.

To multiply by $833\frac{1}{3}$, divide by 15, and call it ten thousands, by annexing four ciphers.

To multiply by $8\frac{1}{3}$, divide by 12, and call it thousands.

To multiply by $8\frac{1}{3}$, divide by 12, and call it hundreds, because $8\frac{1}{3}$ is $\frac{1}{12}$ of a hundred. The reason is similar in each case.

To multiply by $166\frac{2}{3}$, divide by 6, and call it thousands.

To multiply by $16\frac{2}{3}$, divide by 6, and call it hundreds.

To multiply by $1\frac{2}{3}$, divide by 6, and call it tens.

To multiply by $37\frac{1}{2}$, take $\frac{3}{8}$ of the number, and call it hundreds; $87\frac{1}{2}$, $\frac{7}{8}$ of the number, and call it hundreds, etc.

We simply reverse these methods to divide. To divide by 10, 100, 1,000, etc., we remove the point one, two and three places to the left.

To divide by 25, remove the decimal point two places to the left, and multiply by 4.

Removing the point two places divides by one hundred; hence the quotient is 4 times too small; hence we remove the point two places, and multiply by 4.

To divide by $2\frac{1}{2}$, remove the point one place to the left, and multiply by 4.

To divide by 125, remove the point three places to the left, and multiply by 8.

To divide by $12\frac{1}{2}$, remove the point two places to the left, and multiply by 8.

To divide by $1\frac{1}{4}$, remove the point one point to the left, and multiply by 8. There are about $1\frac{1}{4}$ cubic feet in one bushel. Hence dividing the number of cubic feet by $1\frac{1}{4}$ gives the number of bushels nearly.

To divide by $133\frac{1}{3}$, remove the point three places to the left, and multiply by 3.

To divide by $8\frac{1}{3}$, remove the point two places to the left, and multiply by 12.

SHORT METHODS OF MULTIPLICATION.

HOW TO MULTIPLY ANY SMALL NUMBER ENDING WITH 5.

Example: 25×85 . To the product of 2 and 8 add one-half their sum, and to this result annex 25.

$$\begin{array}{rcl} \text{Solution: } 25 & 5 \times 5 = 25 \\ 85 & 2 \times 8 = 16, 16 + \frac{1}{2}(2+8) = 21 \\ \hline & 2125 \end{array}$$

This rule is very simple and useful; practise it, it never fails.

THE COMPLEMENT RULE.

The complement of a number added to the number makes it 10, or 100, or 1000, etc. The complement of 93 is 2, of 91 is 9. To find the product of these two numbers, multiply the complements together; and for the other two figures subtract across, either the 2 from the 91, or the 9 from the 94

98-2
91-9

8918

HOW TO MULTIPLY ANY NUMBER BY 21, 22, 23, 24, etc.

Multiply each figure in the multiplicand by the units figure in the multiplier, increasing each separate product by double the figure to the right of the one multiplied; double the last figure.

Solution: $3 \times 2 = 6$, $3 \times 0 = 0$, and double the right-hand figure, 2, = 4.
 $3 \times 1 = 3$, and double the right-hand figure, 0, = 3. $3 \times 2 = 6$, double the 1, = 8. Double the last figure.

2102
23

48346

HOW TO MULTIPLY ANY NUMBER BY 21, 31, 41, etc.

To multiply any number of two figures when the last is 1, or of three figures when the last two are 01.

Example: Multiply 230412 by 21. Instead of the ordinary long process, simply multiply by 2, placing the product one figure to the left, and then add. This rule is as practical as it is simple; try it, using 31, 51, 201, etc.

230412
460824

4838652

How to Multiply any Two Numbers whose right-hand figures add to TEN, and the left-hand figures are the same.

Example: 87 Three times 7 are 21. Put down both figures, add one to the second figure, and then say 9 times 8 are 72. Put down both figures, and you have the correct result. This rule is practical, and the application of it is simple.

Try it with,

21	32	43	54	65	76	87	98
29	38	47	56	65	74	83	92

TO MULTIPLY BY 9's.

To multiply by 9, 99, or any number of 9's, annex as many ciphers to the multiplicand as there are 9's in the multiplier, and from the result subtract the multiplicand.

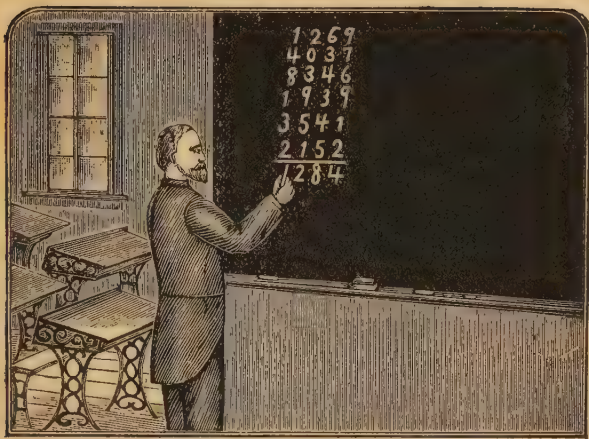
Example: Multiply 2,736 by 999 = 2,736,000
2,736

2,733,264 Ans.

Weight and Value of Gold and Silver.

A ton of pure gold is valued at \$602,799.21. The weight of a million dollars in gold coin is 3,685.8 pounds.

A ton of pure silver is valued at \$37,704.84. The weight of a million dollars in silver coin is 58,929.9 pounds.



AN EASY WAY TO ADD.

This is a very simple and easy method, and will be a great help to those who find difficulty in adding long columns of figures correctly :

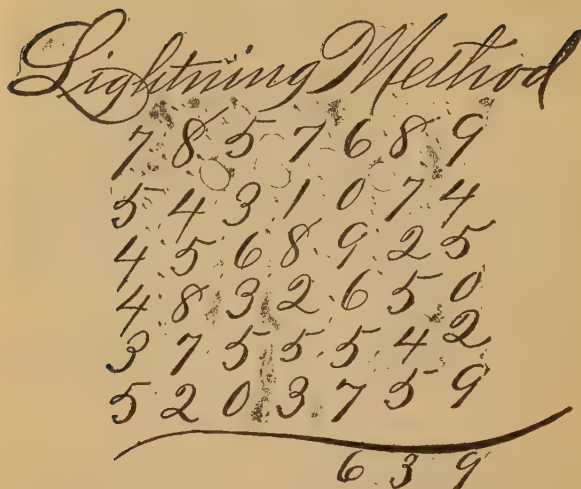
4⁷

EXAMPLE:

7 *Process.*—Begin at 9 to add as near 20 as you can,
 6 thus: $9 + 2 + 4 + 3 = 18$, reject the tens and place
 3⁶ the 8 to the right of the 3, as in example; begin
 4 at 6 and add $6 + 8 + 4 = 18$, reject the tens, as be-
 9 fore, and place 8 to the right of 4, as in example;
 4⁷ begin at $6 + 7 + 4 = 17$, reject tens, place 7 to the
 7 right of 4, as in example; then $9 + 4 + 3 = 16$, re-
 6 ject tens, place 6 to the right of 3; then $6 + 7 +$
 4⁸ $4 = 17$, reject tens, and place 7 to the right, as
 8 before; having arrived at the top of the column,
 6 add the figures in the new column, thus: $8 + 8 + 7$
 3⁸ $+ 6 + 7 = 36$, or 3 tens and 6 units; place the 6
 4 units as the unit's figure of the sum, having 3 tens
 2 to carry to 5 tens, the number of integers or catch
 9 figures already rejected. $3 + 5 = 8$ tens, which pre-
 8⁶ fixed with the 6, makes 86 the sum.

N. B.—Two or more columns may be added in the same way by using a lead pencil, and then erasing the figures used after the addition is completed.

ADDITION.



"Lightning addition" lies in the ability to see and take in the result of two or more figures without stopping to add each figure separately, i. e., to read results in figures as in reading a book, the meaning of the word or sentence is known without spelling out each syllable or word.

Process : Commence at the bottom at the right and add thus in the above example : 11, 20, 29 ; then carry the 2 tens to the second column ; then add, 7, 16, 25, 33 ; carry the 3 hundreds to the third column and add the same way ; 10, 21, 30, 36, etc., etc.

Never allow yourself to add up a column in this manner : 9 and 2 are 11 and 5 are 16 and 4 are 20 and 9 are 29. It is just as easy to name the results of two or more figures at once, and five times as rapid.

Practice adding columns of figures fifteen minutes each day for six months, and you will become an expert in addition.

The Civil Service Method of Addition.

*This method may be new
to some, but it should be
understood by all.*

\$2492.27	
9636.85	24
3254.36	24
8927.05	25
1622.31	27
400.10	34
4321.70	32
5043.00	
	\$35697.64

Commence at the right and add each column of figures by itself, as for instance the first column equals 24; put down the 24; the next column equals 24; put it down as above; the next column equals 25, the next 27, and so on, and then add the results as shown in the above form.

The advantage of this method is that a persons attention may be called to other things, while he is in the midst of his results, and not loose any time or suffer any disadvantage. In the countinghouse or places of business where there is a great deal of talking and many other things call the clerk, when he left off he is never at a loss to resume his work.

IMPROVED METHOD FOR ADDING LONG COLUMNS.

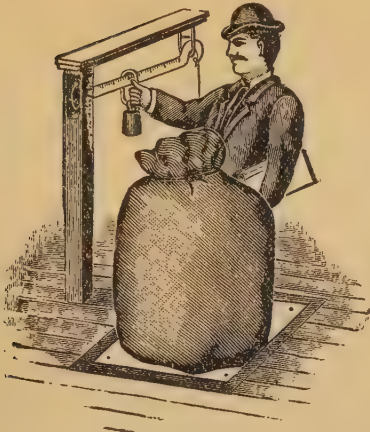
23434.78	
71321.96	
86798.43	38
30586.51	55
61369.57	54
15438.90	46
19709.76	52
20673.24	30
10931.43	34
340264.58	

Add the right-hand column as in simple addition; write down the full amount, but carry the left-hand figure or figures to the next column, as in the common method; write the full amount of the second column directly under the amount of the first column, carrying again the left-hand figure or figures as before to the next column. Thus add each column separately, always writing down the full amount and at the same time carrying the left-hand figure or figures as above directed.

The result will appear by reading the last amount written, together with the right-hand figures of the partial amounts, in the reverse order in which they were set down.

This method has all the advantages of the Civil Service method, with the additional advantage of showing the result without a second addition of the partial amounts; besides, it requires less space.

If it is desired to preserve the figures they may be placed in light pencil to the right or left of the column being added.



How to Determine Results by Cancellation.

1. Cancellation is the method of shortening operations by rejecting equal factors from numbers used as a divisor and the numbers used as a dividend.

2. Cancellation shortens the process of multiplication and division and is very practical in the following list of examples.

ILLUSTRATION: Multiply $18 \times 16 \times 28$ and divide the result by $12 \times 7 \times 14$, and it will equal $6\frac{2}{7}$.

SOLUTION.

$$\begin{array}{r} \overset{3}{\cancel{18}} \times \overset{2}{\cancel{16}} \times \overset{2}{\cancel{28}} = \frac{3 \times 16}{7} = 6\frac{2}{7}, \text{ Ans.} \\ \cancel{12} \times \cancel{7} \times \cancel{14} \end{array}$$

$$\begin{array}{r|l} \text{Or, } \overset{2}{\cancel{12}} & \overset{3}{\cancel{18}} \\ \overset{7}{\cancel{14}} & 16 \\ \hline 7 & 28 \\ \hline & 48 = 6\frac{2}{7}, \text{ Ans.} \end{array}$$

How to Estimate all Kinds of Produce, and Figure Up Wheat, Oats, Potatoes, Etc., Sold by the Bushel.

Cancellation Method.

EXAMPLE: What will 1660 pounds of wheat cost at 80 cents a bushel?

SOLUTION:

$$\begin{array}{r|l} 3 & 1660 \\ \hline 60 & .80 \\ & .4 \end{array}$$

$$3 \mid 66.40 = \$22.13\frac{1}{3}. \text{ Ans.}$$

EXPLANATION: It will be seen at a glance that the number of pounds and the price are to be multiplied together and the result divided by 60; so place 1660 and 80 on one side of the line and 60 on the other and determine the result by cancellation as shown in the above. This principle will apply to any commodity and is one of the best and most rapid methods in solving practical examples.

EXAMPLE: What will 2840 pounds of corn cost at 36 cents per bushel?

SOLUTION:

$$\begin{array}{r|l} 70 & 2840 \\ \hline & .36 \end{array}$$

$$7 \mid 102.24 = \$14.60\frac{2}{3}. \text{ Ans.}$$



How to Figure Lumber by Cancellation.

RULE: Lumber is measured by the running foot. A foot square and one inch thick is the unit of measurement. It is easily seen that the number of pieces of lumber, multiplied by the length and that result multiplied by the cost, and the total result divided by 12, will determine the cost of any quantity of lumber that may be desired.

EXAMPLE: How many feet in a stick of lumber 6 x 8 and 18 feet long?

SOLUTION:

$$\begin{array}{r|l} \cancel{6} & \cancel{8} \\ \cancel{12} & 8 \\ \cancel{2} & \cancel{18}^9 \\ \hline & 72 \text{ feet, } Ans. \end{array}$$

EXAMPLE: What will be the cost of 10 planks 14 inches wide, 2 inches thick, 14 feet long, at \$20 per thousand?

SOLUTION:

$$\begin{array}{r|l} \cancel{14}^7 & \cancel{2} \\ \cancel{3} & 14 \\ \cancel{6} & 10 \\ \cancel{12} & 20 \\ \hline 3 & 196.00 = \$6.53\frac{1}{3}. \text{ } Ans. \end{array}$$

EXAMPLE: What will be the cost of 20 pieces 2 x 4, 18 feet long, at \$12 per thousand?

SOLUTION:

$$\begin{array}{r|l} & 2 \\ & 4 \\ \cancel{12} & 18 \\ & 20 \\ \hline & \cancel{12} \\ & \$2.880. \text{ } Ans. \end{array}$$

How to Figure Up the Plastering of a Room by Cancellation.

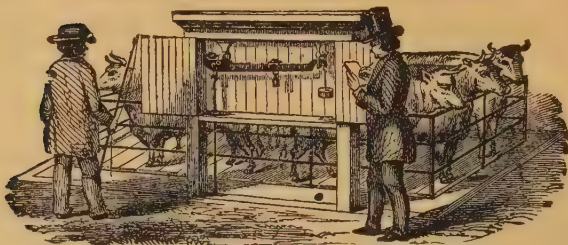
RULE: Multiply the distance around the room in feet by the height of the room in feet and this result by the price per square yard, and divide the product by 9, because there are 9 square feet in a square yard. For the ceiling multiply the length of the room by the width of the room in feet and this by the price per square yard, and divide the product by 9. Add the two results and you have the cost of plastering the room.

EXAMPLE: What would it cost to plaster a room 18 feet wide, 22 feet long, and 9 feet high, at 20 cents per square yard?

SOLUTION:

$$\begin{array}{r|l} \cancel{18}^9 & \cancel{20} \\ \cancel{9} & \cancel{18}^2 \\ \hline & 16.00 \end{array} \quad \begin{array}{r|l} \cancel{22}^2 & \cancel{20} \\ \cancel{9} & \cancel{18}^2 \\ \hline & 8.80 \end{array}$$

$$\$16.00 + \$8.80 = \$24.80. \text{ } Ans.$$



RAPID METHODS IN BUSINESS CALCULATIONS.

To Multiply any Two Numbers together, each having the same Fractions.

- Rule.*—1. Multiply the whole numbers together.
 2. Add the two numbers together and multiply this sum by either one of the fractions.
 3. Multiply the two fractions together.
 4. Add the results together.

EXAMPLE.

$$\begin{array}{r}
 12\frac{3}{4} \\
 8\frac{3}{4} \\
 \hline
 96 \\
 15 \\
 \frac{9}{16} \\
 \hline
 111\frac{9}{16} \text{ Ans.}
 \end{array}$$

How to Multiply any Mixed Numbers.

- Rule.*—1. Multiply the whole numbers together.
 2. Multiply the upper whole number by the lower fraction.
 3. Multiply the lower whole number by the upper fraction.
 4. Multiply the fractions together.
 5. Add the four products together.

EXAMPLE.—MULTIPLY $16\frac{1}{2}$ BY $9\frac{3}{4}$.

1. Whole numbers multiplied.....	144
2. Multiply 16 by $\frac{3}{4}$	12
3. Multiply 9 by $\frac{1}{2}$	6
4. Multiply $\frac{1}{2}$ by $\frac{3}{4} = \frac{3}{8}$ or.....	$\frac{1}{2}$
5. Add results together... ..	$162\frac{1}{2} \text{ Ans.}$

N. B.—The examples should be worked by not writing out the middle parts, but add the amounts mentally.

Business Methods for Multiplying all kinds of Mixed Numbers.

Rule.—Multiply the whole numbers together, then multiply each whole number by the fraction in the other number to its nearest unit and add the products.

NOTE.—In business it is the custom to reject fractions less than $\frac{1}{2}$ in each sum and count one for each fraction over $\frac{1}{2}$.

How much will $34\frac{3}{4}$ yards of cloth cost at $22\frac{1}{2}$ cents per yard?

Solution, $34 \times 22 = \$7.48$

$34 \times \frac{1}{2} = .17$

Nearest unit, $22 \times 34 = .16$ (We omit the fraction and call it 16.)

$\frac{3}{4} \times \frac{1}{2} = \frac{3}{8}$

$\$7.81\frac{3}{8} \text{ Ans.}$

What is the cost of 17 dozen and 9 eggs at $12\frac{1}{2}$ cents per dozen?

Solution, $17 \times 12 = \$2.04$

$17 \times \frac{1}{2} = 9$ (Make the $\frac{1}{2}$ a unit.)

9 eggs = $\frac{3}{4}$ dozen, $12 \times \frac{3}{4} = 9$

$\$2.22 \text{ Ans.}$

N. B.—The last fraction in business is generally omitted.

Tables of Weights and Measures.

TROY WEIGHT.

24 grains make 1 pennyweight, 20 pennyweights make 1 ounce. By this weight gold, silver and jewels only are weighed. The ounce and pound in this, are same as in Apothecarys' weight.

APOTHECARYS' WEIGHT.

20 grains make one scruple, 3 scruples make 1 drachm, 8 drachms make 1 ounce 12 ounces make 1 pound.

AVOIRDUPOIS WEIGHT.

16 drachms make 1 ounce, 16 ounces make 1 pound, 25 pounds make 1 quarter, 4 quarters make 100-weight, 2,000 pounds make a ton.

DRY MEASURE.

2 pints make 1 quart, 8 quarts make 1 peck, 4 pecks make one bushel, 36 bushels make 1 chaldron.

LIQUID OR WINE MEASURE.

4 gills make 1 pint, 2 pints make 1 quart, 4 quarts make 1 gallon, $31\frac{1}{2}$ gallons make one barrel, 2 barrels make 1 hogshead.

TIME MEASURE.

60 seconds make 1 minute, 60 minutes make 1 hour, 24 hours make 1 day, 7 days make 1 week, 4 weeks make 1 lunar month, 28, 29, 30, or 31 days make 1 calendar month (30 days make 1 month in computing interest), 52 weeks and 1 day, or 12 calendar months, make 1 year, 365 days, 5 hours, 48 minutes and 49 seconds make 1 solar year.

CIRCULAR MEASURE.

60 seconds make 1 minute, 60 minutes make 1 degree, 30 degree make 1 sign, 90 degrees make 1 quadrant, 4 quadrants or 360 degrees make 1 circle.

LONG MEASURE—DISTANCE.

3 barleycorns 1 inch, 12 inches 1 foot, 3 feet 1 yard, $5\frac{1}{2}$ yards 1 rod, 40 rods 1 furlong, 8 furlongs one mile.

CLOTH MEASURE.

$2\frac{1}{2}$ inches 1 nail, 4 nails 1 quarter, 4 quarters 1 yard.

MISCELLANEOUS.

3 inches 1 palm, 4 inches 1 hand, 6 inches 1 span, 18 inches 1 cubit, 21.8 inches 1 Bible cubit, $2\frac{1}{2}$ feet 1 military pace.

SQUARE MEASURE.

144 square inches 1 square foot, 9 square feet 1 square yard, $30\frac{1}{4}$ square yards 1 square rod, 40 square rods 1 rood, 4 roods 1 acre, or 160 square rods one acre.

SURVEYOR'S MEASURE.

7.92 inches 1 link, 25 links 1 rod, 4 rods 1 chain, 10 square chains or 160 square rods, 1 acre, 640 acres one square mile.

CUBIC MEASURE.

1728 cubic inches 1 cubic foot, 27 cubic feet 1 cubic yard, 128 cubic feet 1 cord (wood), 40 cubic feet 1 ton (shipping), 2150.42 cubic inches 1 standard bushel, 231 cubic inches 1 standard gallon, 1 cubic foot four-fifths of a bushel.

MISCELLANEOUS TABLE.

12 things make	1 dozen.
12 dozen make	1 gross.
12 gross make	1 great gross.
20 things make	1 score.
196 pounds of flour make	1 barrel.
200 pounds of beef or pork make	1 barrel.
135 pounds of potatoes or apples make	1 barrel.
280 pounds of salt make	1 barrel.
400 pounds of molasses make	1 barrel.
200 pounds of sugar make	1 barrel.
240 pounds of lime make	1 barrel.
100 pounds of fish make	1 quintal.
100 pounds of nails make	1 keg.
50 pounds of soap make	1 box.
20 pounds of raisins make	1 box.
2 pounds of cigars make	1 box.
20 pounds of soda make	1 box.
40 pounds of cheese make	1 box.
25 pounds of tobacco make	1 box.
62 pounds of tea make	1 box.
60 pounds of saleratus make	1 box.
25 pounds of chocolate make	1 box.
56 pounds of butter make	1 firkin.
5 pounds of spices make	1 can.
1100 pounds of rice make	1 tierce.
2150.42 cubic inches make	1 bushel.
231 cubic inches make	1 gallon.
14 pounds make	1 stone.
43560 feet make	1 acre.
100 square feet make	1 square.
5280 feet make	1 mile.
24¾ cubic feet make	1 perch of stone.
128 cubic feet make	1 cord.
140 lbs. of lime make	1 cask.

A CUBIC FOOT OF

	Pounds.		Pounds
Common soil weighs	124	Clay or stone weighs	160
Strong " "	127	Cork	15
Loose earth or sand	95	Tallow	59
Clay	135	Bricks	125
Lead	708¾	Marble	171
Copper	555	Granite	165
Wrought iron	486¾	Oak wood	55
Anthracite coal	50-55	Red pine	42
Bituminous " "	45-55	White pine	36

Legal Hints and Helps Concerning Interest.

1. It is the general practice of the courts in this country to award interest computed at the legal rate, from the time when payment should have been made. Interest upon a judgment dates from the time the judgment is rendered.

2. A CREDITOR may charge interest on an account from the expiration of the time of credit. When no time is specified, interest may be charged from the time payment is demanded, or when the statement of account has been rendered.

3. A DEBT for board and lodging, where there was no fixed price or time of payment fixed, will not draw interest until it is reduced to judgment, or its amount otherwise determined. Interest may not be charged upon the items of a running account until the balance is struck, and the statement rendered.

4. COMPOUND interest cannot be collected by law. When interest has already accrued and become payable, an agreement that it shall be added to the principal thus formed, will generally be deemed legal. When such interest would not be recoverable upon an ordinary contract in which its payment was agreed upon, yet, if it has actually been paid, it cannot be recovered.

5. GUARDIANS, EXECUTORS and ADMINISTRATORS, and TRUSTEES of every kind, may be charged interest upon all trust funds in their hands after their failure to invest them within a reasonable time.

6. CUSTOM: Where it is a uniform practice of the seller to charge interest and this is known to the customer or purchaser at the time when the transaction takes place, interest may be charged on book accounts.

7. PARTNERS: If a partner withdraws money from the partnership funds belonging to the firm, for private use or for the purpose of speculation, he will be liable for *interest* on the money so withdrawn.

8. INSURANCE POLICY: When loss occurs under a policy of insurance, it bears interest from the time it is due according to the terms of the policy.



The Celebrated Lightning Method for Calculating Interest.

WHERE THE TIME IS FOR DAYS ONLY.

Rule—To find the interest on any given sum for any number of days, multiply the principal by the number of days, and divide as follows :

At 5 per cent., divide by 72

At 6 per cent., divide by 60

At 7 per cent., divide by 52

At 8 per cent., divide by 45

At 9 per cent., divide by 40

At 10 per cent., divide by 36

At 12 per cent., divide by 30

Example: What is the interest on \$900.00 for 8 days at 6 per cent.?

Solution: $900 \times 8 \div 60 = \$1.20$ interest.

WHEN THE TIME CONSISTS OF YEARS, MONTHS AND DAYS.

1. Rule.—Reduce years to months, adding the number of months, then place $\frac{1}{8}$ of the number of days to the right of the months with a decimal point between.

2. Then remove the decimal point two places to the left in the principal, and divide by 2, and the result will equal the interest for one month at 6 per cent.

3. Multiply the interest for one month by the number of months, and the product is the interest at 6 per cent. for the given time.

Then add $\frac{1}{8}$ of itself for 7 per cent.

“ “ $\frac{1}{3}$ of itself for 8 per cent.

“ “ $\frac{1}{2}$ of itself for 9 per cent.

“ “ $\frac{2}{3}$ of itself for 10 per cent.

Subtract $\frac{1}{8}$ of itself for 5 per cent.

“ $\frac{1}{3}$ of itself for 4 per cent.

Example: Find the interest on \$150, at 9 per cent. for 1 year, 4 months and 12 days.

Solution: $\$1.50 \div 2 = .75$ interest for 1 month, 1 year, 4 months and 12 days = 16.4 months.

$.75 \times 16.4 = \$12.30$, interest at 6 per cent.

$12.30 + 6.15 = \$18.45$, interest at 9 per cent.

N. B.—The \$6.15 is one-half of \$12.30.

Banker's Method of Calculating Interest.

In banking nearly all the business is transacted on the basis of 30, 60, and 90 days.

Rule.—To find the interest on any amount at 60 days, remove the decimal point two places to the left, and you have the interest at 6 per cent.

Increase or diminish according as the time is increased or diminished.

For 90 days add $\frac{1}{2}$ of itself.

For 30 days divide by 2.

For 15 days divide by 4.

For 120 days multiply by 2.

Example: What is the interest on \$240 for 90 days at 6 per cent?

2.40 interest for 60 days.

1.20 interest for $\frac{1}{2}$ of 60 days, or 30 days.

3.60 interest for 90 days.

TIME TABLE.

Showing the number of days from any day in one month to the same day in any other.

From To	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Jan	365	31	59	90	120	151	181	212	243	273	304	334
Feb	334	365	28	59	89	120	150	181	212	242	273	303
March	306	337	365	31	61	92	122	153	184	214	245	275
April	275	306	334	365	30	61	91	122	153	183	21	244
May	245	276	304	335	365	31	61	92	123	153	184	214
June	214	245	273	304	334	365	30	61	92	122	153	183
July	184	215	243	274	304	335	365	31	62	92	123	153
Aug	153	184	212	243	273	304	334	365	31	61	92	122
Sept	122	153	181	212	242	273	303	334	365	30	61	91
Oct	92	123	151	182	212	243	273	304	335	365	31	61
Nov	61	92	120	151	181	212	242	273	304	334	365	30
Dec	31	62	90	121	151	182	212	243	274	304	335	365

NOTE.—Find in the left-hand column the month from any day of which you wish to compute the number of days to the same day in any other month; then follow the line along until under the desired month, and you have the required number of days.

Example: How many days from May 17 to Nov. 17? 184 days. Ans.

HOW TO USE THE INTEREST TABLES.

1. The interest on any sum of money, and for any length of time, may be obtained, by adding to or doubling any certain sum, or length of time in the tables, viz: If the interest on a certain sum of money at eight per cent. for a given time should be \$28.00, one-half of \$28.00 or \$14.00 would equal the interest at 4%, etc.

2. If the interest at 3% should amount to \$26.00 on a certain sum of money for a given time, twice that amount or \$52.00 would equal the interest at 12%, etc.

3. The tables are computed on the principle of 360 days in a year, the rule adopted by bankers and merchants throughout the entire country.

4. When the fraction of interest is a half a cent or more, a whole cent is taken, but when less than a half cent, nothing is charged.

EXAMPLE:

To find the interest (\$1,108) for one year, three months and twenty-nine days, at 7%, according to table:

Interest on \$1,000, for 1 year, at 7 per cent.,	\$70.00
“ “ 100, “ 1 “ “ 7 “ “	7.00
“ “ 8, “ 1 “ “ 7 “ “	56
“ “ 1,000, “ 3mths., “ 7 “ “	17.50
“ “ 100, “ 3 “ “ 7 “ “	1.75
“ “ 8, “ 3 “ “ 7 “ “	14
“ “ 1,000, “ 29 days, “ 7 “ “	5.64
“ “ 100, “ 29 “ “ 7 “ “	56
“ “ 8, “ 29 “ “ 7 “ “	05

Interest on the amount.....\$103.20

INTEREST AT FIVE PER CENT.

TIME.	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10	\$100	\$1000
1 Day.	.00	.00	.00	.00	.00	.00	.00	.00	.00	\$.00	\$.01	\$.14
2 "	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.28
3 "	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.42
4 "	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01	.06	.56
5 "	.00	.00	.00	.00	.00	.00	.01	.01	.01	.01	.07	.69
6 "	.00	.00	.00	.00	.00	.01	.01	.01	.01	.01	.08	.83
7 "	.00	.00	.00	.00	.01	.01	.01	.01	.01	.01	.10	.97
8 "	.00	.00	.00	.00	.01	.01	.01	.01	.01	.01	.11	1.11
9 "	.00	.00	.00	.01	.01	.01	.01	.01	.01	.01	.13	1.25
10 "	.00	.00	.00	.01	.01	.01	.01	.01	.01	.01	.14	1.39
11 "	.00	.00	.00	.01	.01	.01	.01	.01	.01	.02	.15	1.53
12 "	.00	.00	.01	.01	.01	.01	.01	.01	.01	.02	.17	1.67
13 "	.00	.00	.01	.01	.01	.01	.01	.01	.02	.02	.18	1.81
14 "	.00	.00	.01	.01	.01	.01	.01	.02	.02	.02	.19	1.94
15 "	.00	.00	.01	.01	.01	.01	.01	.02	.02	.02	.21	2.08
16 "	.00	.00	.01	.01	.01	.01	.02	.02	.02	.02	.22	2.22
17 "	.00	.00	.01	.01	.01	.01	.02	.02	.02	.02	.24	2.36
18 "	.00	.01	.01	.01	.01	.02	.02	.02	.02	.03	.25	2.50
19 "	.00	.01	.01	.01	.01	.02	.02	.02	.02	.03	.26	2.64
20 "	.00	.01	.01	.01	.01	.02	.02	.02	.03	.03	.28	2.78
21 "	.00	.01	.01	.01	.01	.02	.02	.02	.03	.03	.29	2.92
22 "	.00	.01	.01	.01	.01	.02	.02	.02	.03	.03	.31	3.06
23 "	.00	.01	.01	.01	.02	.02	.02	.03	.03	.03	.32	3.19
24 "	.00	.01	.01	.01	.02	.02	.02	.03	.03	.03	.33	3.33
25 "	.00	.01	.01	.01	.02	.02	.02	.03	.03	.03	.35	3.47
26 "	.00	.01	.01	.01	.02	.02	.03	.03	.03	.04	.36	3.61
27 "	.00	.01	.01	.02	.02	.02	.03	.03	.03	.04	.38	3.75
28 "	.00	.01	.01	.02	.02	.02	.03	.03	.04	.04	.39	3.80
29 "	.00	.01	.01	.02	.02	.02	.03	.03	.04	.04	.40	4.03
1 Month.	.00	.01	.01	.02	.02	.03	.03	.03	.04	.04	.42	4.17
2 "	.01	.02	.03	.03	.04	.05	.06	.07	.08	.08	.83	8.33
3 "	.01	.03	.04	.05	.06	.08	.09	.10	.11	.13	1.25	12.50
4 "	.02	.03	.05	.07	.08	.10	.12	.13	.15	.17	1.67	16.67
5 "	.02	.04	.06	.08	.10	.13	.15	.17	.19	.21	2.08	20.83
6 "	.03	.05	.08	.10	.13	.15	.18	.20	.23	.25	2.50	25.00
7 "	.03	.06	.09	.12	.15	.18	.20	.23	.26	.29	2.92	29.17
8 "	.03	.07	.10	.13	.17	.20	.23	.27	.30	.33	3.33	33.33
8 "	.04	.08	.11	.15	.19	.23	.26	.30	.34	.38	3.75	37.50
10 "	.04	.08	.13	.17	.21	.25	.29	.33	.38	.42	4.17	41.67
11 "	.05	.09	.14	.18	.23	.28	.32	.37	.41	.46	4.58	45.83
1 Year.	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	5.00	50.00

INTEREST AT SIX PER CENT.

TIME.	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10	\$100	\$1000
1 Day.	.00	.00	.00	.00	.00	.00	.00	.00	.00	\$.00	\$.02	\$.17
2 "	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.33
3 "	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.05	.50
4 "	.00	.00	.00	.00	.00	.00	.01	.01	.01	.01	.07	.67
5 "	.00	.00	.00	.00	.00	.01	.01	.01	.01	.01	.08	.83
6 "	.00	.00	.00	.00	.01	.01	.01	.01	.01	.01	.10	1.00
7 "	.00	.00	.00	.00	.01	.01	.01	.01	.01	.01	.12	1.17
8 "	.00	.00	.00	.01	.01	.01	.01	.01	.01	.01	.13	1.33
9 "	.00	.00	.00	.01	.01	.01	.01	.01	.01	.02	.15	1.50
10 "	.00	.00	.01	.01	.01	.01	.01	.01	.02	.02	.17	1.67
11 "	.00	.00	.01	.01	.01	.01	.01	.01	.02	.02	.18	1.83
12 "	.00	.00	.01	.01	.01	.01	.01	.02	.02	.02	.20	2.00
13 "	.00	.00	.01	.01	.01	.01	.02	.02	.02	.02	.22	2.17
14 "	.00	.00	.01	.01	.01	.01	.02	.02	.02	.02	.23	2.33
15 "	.00	.01	.01	.01	.01	.02	.02	.02	.02	.03	.25	2.50
16 "	.00	.01	.01	.01	.01	.02	.02	.02	.03	.03	.27	2.67
17 "	.00	.01	.01	.01	.01	.02	.02	.02	.03	.03	.28	2.83
18 "	.00	.01	.01	.01	.02	.02	.02	.02	.03	.03	.30	3.00
19 "	.00	.01	.01	.01	.02	.02	.02	.03	.03	.03	.32	3.17
20 "	.00	.01	.01	.01	.02	.02	.02	.03	.03	.03	.33	3.33
21 "	.00	.01	.01	.01	.02	.02	.02	.03	.03	.04	.35	3.50
22 "	.00	.01	.01	.01	.02	.02	.03	.03	.03	.04	.37	3.67
23 "	.00	.01	.01	.02	.02	.02	.03	.03	.03	.04	.38	3.83
24 "	.00	.01	.01	.02	.02	.02	.03	.03	.04	.04	.40	4.00
25 "	.00	.01	.01	.02	.02	.03	.03	.03	.04	.04	.42	4.17
26 "	.00	.01	.01	.02	.02	.03	.03	.03	.04	.04	.43	4.33
27 "	.00	.01	.01	.02	.02	.03	.03	.04	.04	.05	.45	4.50
28 "	.00	.01	.01	.02	.02	.03	.03	.04	.04	.05	.47	4.67
29 "	.00	.01	.01	.02	.02	.03	.03	.04	.04	.05	.48	4.83
1 Month.	.01	.01	.02	.02	.03	.03	.04	.04	.05	.05	.50	5.00
2 "	.01	.02	.03	.04	.05	.06	.07	.08	.09	.10	1.00	10.00
3 "	.02	.03	.05	.06	.08	.09	.11	.12	.14	.15	1.50	15.00
4 "	.02	.04	.06	.08	.10	.12	.14	.16	.18	.20	2.00	20.00
5 "	.03	.05	.08	.10	.13	.15	.18	.20	.23	.25	2.50	25.00
6 "	.03	.06	.09	.12	.15	.18	.21	.24	.27	.30	3.00	30.00
7 "	.04	.07	.11	.14	.18	.21	.25	.28	.32	.35	3.50	35.00
8 "	.04	.08	.12	.16	.20	.24	.28	.32	.36	.40	4.00	40.00
9 "	.05	.09	.14	.18	.23	.27	.32	.36	.41	.45	4.50	45.00
10 "	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	5.00	50.00
11 "	.06	.11	.17	.22	.28	.33	.39	.44	.50	.55	5.50	55.00
1 Year.	.06	.12	.18	.24	.30	.36	.42	.48	.54	.60	6.00	60.00

INTEREST AT SEVEN PER CENT.

TIME.	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10	\$100	\$1000
1 Day.	.00	.00	.00	.00	.00	.00	.00	.00	.00	\$.00	\$.02	\$.19
2 "	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.39
3 "	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01	.06	.58
4 "	.00	.00	.00	.00	.00	.00	.01	.01	.01	.01	.08	.78
5 "	.00	.00	.00	.00	.00	.01	.01	.01	.01	.01	.10	.97
6 "	.00	.00	.00	.00	.01	.01	.01	.01	.01	.01	.12	1.17
7 "	.00	.00	.00	.01	.01	.01	.01	.01	.01	.01	.14	1.36
8 "	.00	.00	.00	.01	.01	.01	.01	.01	.01	.02	.16	1.56
9 "	.00	.00	.01	.01	.01	.01	.01	.01	.02	.02	.18	1.75
10 "	.00	.00	.01	.01	.01	.01	.01	.02	.02	.02	.19	1.94
11 "	.00	.00	.01	.01	.01	.01	.01	.02	.02	.02	.21	2.14
12 "	.00	.00	.01	.01	.01	.01	.02	.02	.02	.02	.23	2.33
13 "	.00	.01	.01	.01	.01	.02	.02	.02	.02	.03	.25	2.53
14 "	.00	.01	.01	.01	.01	.02	.02	.02	.02	.03	.27	2.72
15 "	.00	.01	.01	.01	.01	.02	.02	.02	.03	.03	.29	2.92
16 "	.00	.01	.01	.01	.02	.02	.02	.02	.03	.03	.31	3.11
17 "	.00	.01	.01	.01	.02	.02	.02	.03	.03	.03	.33	3.31
18 "	.00	.01	.01	.01	.02	.02	.02	.03	.03	.04	.35	3.50
19 "	.00	.01	.01	.01	.02	.02	.03	.03	.03	.04	.37	3.69
20 "	.00	.01	.01	.02	.02	.02	.03	.03	.04	.04	.39	3.89
21 "	.00	.01	.01	.02	.02	.02	.03	.03	.04	.04	.41	4.08
22 "	.00	.01	.01	.02	.02	.03	.03	.03	.04	.04	.43	4.28
23 "	.00	.01	.01	.02	.02	.03	.03	.04	.04	.04	.45	4.47
24 "	.00	.01	.01	.02	.02	.03	.03	.04	.04	.05	.47	4.67
25 "	.00	.01	.01	.02	.02	.03	.03	.04	.04	.05	.49	4.86
26 "	.01	.01	.02	.02	.03	.03	.04	.04	.05	.05	.51	5.06
27 "	.01	.01	.02	.02	.03	.03	.04	.04	.05	.05	.53	5.25
28 "	.01	.01	.02	.02	.03	.03	.04	.04	.05	.05	.54	5.44
29 "	.01	.01	.02	.02	.03	.03	.04	.05	.05	.05	.56	5.64
1 Month.	.01	.01	.02	.02	.03	.04	.04	.05	.05	.06	.58	5.83
2 "	.01	.02	.04	.05	.06	.07	.08	.09	.11	.12	1.17	11.67
3 "	.02	.04	.05	.07	.09	.11	.12	.14	.16	.18	1.75	17.50
4 "	.02	.05	.07	.09	.12	.14	.16	.19	.21	.23	2.33	23.33
5 "	.03	.06	.09	.12	.15	.18	.20	.23	.26	.29	2.92	29.17
6 "	.04	.07	.11	.14	.18	.21	.25	.28	.32	.35	3.50	35.00
7 "	.04	.08	.12	.16	.20	.25	.29	.33	.37	.41	4.08	40.83
8 "	.05	.09	.14	.19	.23	.28	.33	.37	.42	.47	4.67	46.67
9 "	.05	.11	.16	.21	.26	.32	.37	.42	.47	.53	5.25	52.50
10 "	.06	.12	.18	.23	.29	.35	.41	.47	.53	.58	5.83	58.33
11 "	.06	.13	.19	.26	.32	.39	.45	.51	.58	.64	6.42	64.17
1 Year.	.07	.14	.21	.28	.35	.42	.49	.56	.63	.70	7.00	70.00

INTEREST AT EIGHT PER CENT.

TIME.	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10	\$100	\$1000
1 Day.	.00	.00	.00	.00	.00	.00	.00	.00	.00	\$.00	\$.02	\$.22
2 "	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.44
3 "	.00	.00	.00	.00	.00	.00	.00	.01	.01	.01	.07	.67
4 "	.00	.00	.00	.00	.00	.01	.01	.01	.01	.01	.09	.89
5 "	.00	.00	.00	.00	.01	.01	.01	.01	.01	.01	.11	1.11
6 "	.00	.00	.00	.01	.01	.01	.01	.01	.01	.01	.13	1.33
7 "	.00	.00	.00	.01	.01	.01	.01	.01	.01	.02	.16	1.56
8 "	.00	.00	.01	.01	.01	.01	.01	.01	.02	.02	.18	1.78
9 "	.00	.00	.01	.01	.01	.01	.01	.02	.02	.02	.20	2.00
10 "	.00	.00	.01	.01	.01	.01	.02	.02	.02	.02	.22	2.22
11 "	.00	.00	.01	.01	.01	.01	.02	.02	.02	.02	.24	2.44
12 "	.00	.01	.01	.01	.01	.02	.02	.02	.02	.03	.27	2.67
13 "	.00	.01	.01	.01	.01	.02	.02	.02	.03	.03	.29	2.89
14 "	.00	.01	.01	.01	.02	.02	.02	.02	.03	.03	.31	3.11
15 "	.00	.01	.01	.01	.02	.02	.02	.03	.03	.03	.33	3.33
16 "	.00	.01	.01	.01	.02	.02	.02	.03	.03	.04	.36	3.56
17 "	.00	.01	.01	.02	.02	.02	.03	.03	.03	.04	.38	3.78
18 "	.00	.01	.01	.02	.02	.02	.03	.03	.04	.04	.40	4.00
19 "	.00	.01	.01	.02	.02	.03	.03	.03	.04	.04	.42	4.22
20 "	.00	.01	.01	.02	.02	.03	.03	.04	.04	.04	.44	4.44
21 "	.00	.01	.01	.02	.02	.03	.03	.04	.04	.05	.47	4.67
22 "	.00	.01	.01	.02	.02	.03	.03	.04	.04	.05	.49	4.89
23 "	.01	.01	.02	.02	.03	.03	.04	.04	.05	.05	.51	5.11
24 "	.01	.01	.02	.02	.03	.03	.04	.04	.05	.05	.53	5.33
25 "	.01	.01	.02	.02	.03	.03	.04	.04	.05	.06	.56	5.56
26 "	.01	.01	.02	.02	.03	.03	.04	.05	.05	.06	.58	5.78
27 "	.01	.01	.02	.02	.03	.04	.04	.05	.05	.06	.60	6.00
28 "	.01	.01	.02	.02	.03	.04	.04	.05	.06	.06	.62	6.22
29 "	.01	.01	.02	.03	.03	.04	.05	.05	.06	.06	.64	6.44
1 Month.	.01	.01	.02	.03	.03	.04	.05	.05	.06	.07	.67	6.67
2 "	.01	.03	.04	.05	.07	.08	.09	.11	.12	.13	1.33	13.33
3 "	.02	.04	.06	.08	.10	.12	.14	.16	.18	.20	2.00	20.00
4 "	.03	.05	.08	.11	.13	.16	.19	.21	.24	.27	2.67	26.67
5 "	.03	.07	.10	.13	.17	.20	.23	.27	.30	.33	3.33	33.33
6 "	.04	.08	.12	.16	.20	.24	.28	.32	.36	.40	4.00	40.00
7 "	.05	.09	.14	.19	.23	.28	.33	.37	.42	.47	4.67	46.67
8 "	.05	.11	.16	.21	.27	.32	.37	.43	.48	.53	5.33	53.33
9 "	.06	.12	.18	.24	.30	.36	.42	.48	.54	.60	6.00	60.00
10 "	.07	.13	.20	.27	.33	.40	.47	.53	.60	.67	6.67	66.67
11 "	.07	.15	.22	.29	.37	.44	.51	.59	.66	.73	7.33	73.33
1 Year.	.08	.16	.24	.32	.40	.48	.56	.64	.72	.80	8.00	80.00

INTEREST AT NINE PER CENT.

TIME.	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10	\$100	\$1000
1 Day.	.00	.00	.00	.00	.00	.00	.00	.00	.00	\$.00	\$.02	\$.25
2 "	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.50
3 "	.00	.00	.00	.00	.00	.00	.00	.01	.01	.01	.08	.75
4 "	.00	.00	.00	.00	.00	.01	.01	.01	.01	.01	.10	1.00
5 "	.00	.00	.00	.00	.01	.01	.01	.01	.01	.01	.12	1.25
6 "	.00	.00	.00	.01	.01	.01	.01	.01	.01	.02	.15	1.50
7 "	.00	.00	.00	.01	.01	.01	.01	.01	.02	.02	.17	1.75
8 "	.00	.00	.01	.01	.01	.01	.01	.02	.02	.02	.20	2.00
9 "	.00	.00	.01	.01	.01	.01	.02	.02	.02	.02	.23	2.25
10 "	.00	.00	.01	.01	.01	.02	.02	.02	.02	.02	.25	2.50
11 "	.00	.00	.01	.01	.01	.02	.02	.02	.02	.03	.27	2.75
12 "	.00	.01	.01	.01	.02	.02	.02	.02	.03	.03	.30	3.00
13 "	.00	.01	.01	.01	.02	.02	.02	.03	.03	.03	.32	3.25
14 "	.00	.01	.01	.01	.02	.02	.02	.03	.03	.03	.35	3.50
15 "	.00	.01	.01	.02	.02	.02	.03	.03	.03	.04	.38	3.75
16 "	.00	.01	.01	.02	.02	.02	.03	.03	.04	.04	.40	4.00
17 "	.00	.01	.01	.02	.02	.03	.03	.03	.04	.04	.42	4.25
18 "	.00	.01	.01	.02	.02	.03	.03	.04	.04	.05	.45	4.50
19 "	.00	.01	.01	.02	.02	.03	.03	.04	.04	.05	.47	4.75
20 "	.00	.01	.01	.02	.02	.03	.03	.04	.05	.05	.50	5.00
21 "	.00	.01	.01	.02	.03	.03	.04	.04	.05	.05	.53	5.25
22 "	.00	.01	.01	.02	.03	.03	.04	.04	.05	.05	.55	5.50
23 "	.00	.01	.02	.02	.03	.03	.04	.05	.05	.06	.57	5.75
24 "	.01	.01	.02	.02	.03	.03	.04	.05	.05	.06	.60	6.00
25 "	.01	.01	.02	.02	.03	.04	.04	.05	.06	.06	.62	6.25
26 "	.01	.01	.02	.03	.03	.04	.05	.05	.06	.06	.65	6.50
27 "	.01	.01	.02	.03	.03	.04	.05	.05	.06	.07	.68	6.75
28 "	.01	.01	.02	.03	.03	.04	.05	.06	.06	.07	.70	7.00
29 "	.01	.01	.02	.03	.03	.04	.05	.06	.06	.07	.72	7.25
1 Month.	.01	.02	.02	.03	.04	.05	.05	.06	.07	.08	.75	7.50
2 "	.02	.03	.05	.06	.08	.09	.11	.12	.14	.15	1.50	15.00
3 "	.02	.05	.07	.09	.11	.14	.16	.18	.20	.23	2.25	22.50
4 "	.03	.06	.09	.12	.15	.18	.21	.24	.27	.30	3.00	30.00
5 "	.04	.08	.11	.15	.19	.23	.26	.30	.34	.38	3.75	37.50
6 "	.05	.09	.14	.18	.23	.27	.32	.36	.41	.45	4.50	45.00
7 "	.05	.11	.16	.21	.26	.32	.37	.42	.47	.53	5.25	52.50
8 "	.06	.12	.18	.24	.30	.36	.42	.48	.54	.60	6.00	60.00
9 "	.06	.14	.20	.27	.33	.41	.47	.54	.60	.68	6.75	67.50
10 "	.08	.15	.23	.30	.38	.45	.53	.60	.68	.75	7.50	75.00
11 "	.08	.17	.24	.33	.41	.50	.57	.66	.74	.83	8.25	82.50
1 Year.	.09	.18	.27	.36	.45	.54	.63	.72	.81	.90	9.00	90.00

INTEREST AT TEN PER CENT.

TIME.	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10	\$100	\$1000
1 Day.	.00	.00	.00	.00	.00	.00	.00	.00	.00	\$.00	\$.03	\$.28
2 "	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01	.06	.56
3 "	.00	.00	.00	.00	.01	.01	.01	.01	.01	.01	.08	.83
4 "	.00	.00	.00	.00	.01	.01	.01	.01	.01	.01	.11	1.11
5 "	.00	.00	.00	.01	.01	.01	.01	.01	.01	.01	.14	1.39
6 "	.00	.00	.01	.01	.01	.01	.01	.01	.02	.02	.17	1.67
7 "	.00	.00	.01	.01	.01	.01	.01	.02	.02	.02	.19	1.94
8 "	.00	.00	.01	.01	.01	.01	.02	.02	.02	.02	.22	2.22
9 "	.00	.01	.01	.01	.01	.02	.02	.02	.02	.03	.25	2.50
10 "	.00	.01	.01	.01	.01	.02	.02	.02	.03	.03	.28	2.78
11 "	.00	.01	.01	.01	.02	.02	.02	.02	.03	.03	.31	3.06
12 "	.00	.01	.01	.01	.02	.02	.02	.03	.03	.03	.33	3.33
13 "	.00	.01	.01	.01	.02	.02	.03	.03	.03	.04	.36	3.61
14 "	.00	.01	.01	.02	.02	.02	.03	.03	.04	.04	.39	3.89
15 "	.00	.01	.01	.02	.02	.03	.03	.03	.04	.04	.42	4.17
16 "	.00	.01	.01	.02	.02	.03	.03	.04	.04	.04	.44	4.44
17 "	.00	.01	.01	.02	.02	.03	.03	.04	.04	.05	.47	4.72
18 "	.01	.01	.02	.02	.03	.03	.04	.04	.05	.05	.50	5.00
19 "	.01	.01	.02	.02	.03	.03	.04	.04	.05	.05	.53	5.28
20 "	.01	.01	.02	.02	.03	.03	.04	.04	.05	.06	.56	5.56
21 "	.01	.01	.02	.02	.03	.04	.04	.05	.05	.06	.58	5.83
22 "	.01	.01	.02	.02	.03	.04	.04	.05	.06	.06	.61	6.11
23 "	.01	.01	.02	.03	.03	.04	.04	.05	.06	.06	.64	6.39
24 "	.01	.01	.02	.03	.03	.04	.05	.05	.06	.07	.67	6.67
25 "	.01	.01	.02	.03	.03	.04	.05	.06	.06	.07	.69	6.94
26 "	.01	.01	.02	.03	.04	.04	.05	.06	.07	.07	.72	7.22
27 "	.01	.02	.02	.03	.04	.05	.05	.06	.07	.08	.75	7.50
28 "	.01	.02	.02	.03	.04	.05	.05	.06	.07	.08	.78	7.78
29 "	.01	.02	.02	.03	.04	.05	.06	.06	.07	.08	.81	8.06
1 Month.	.01	.02	.03	.03	.04	.05	.06	.07	.08	.08	.83	8.33
2 "	.02	.03	.05	.07	.08	.10	.12	.13	.15	.17	1.67	16.67
3 "	.03	.05	.08	.10	.13	.15	.18	.20	.23	.25	2.50	25.00
4 "	.03	.07	.10	.13	.17	.20	.23	.27	.30	.33	3.33	33.33
5 "	.04	.08	.13	.17	.21	.25	.29	.33	.38	.42	4.17	41.67
6 "	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50	5.00	50.00
7 "	.06	.12	.18	.23	.29	.35	.41	.47	.53	.58	5.83	58.33
8 "	.07	.13	.20	.27	.33	.40	.47	.53	.60	.67	6.67	66.67
9 "	.08	.15	.23	.30	.38	.45	.53	.60	.68	.75	7.50	75.00
10 "	.08	.17	.25	.33	.42	.50	.58	.67	.75	.83	8.33	83.33
11 "	.09	.18	.28	.37	.46	.55	.64	.73	.83	.92	9.17	91.67
1 Year.	.10	.20	.30	.40	.50	.60	.70	.80	.90	1.00	10.00	100.00

Time at which Money Doubles at Interest.

<i>Rate per cent.</i>	<i>Simple Interest.</i>	<i>Compound Interest.</i>
2.....	50 years.	35 years 1 day.
2½.....	40 years.	28 years 26 days.
3.....	33 years 4 months.	23 years 164 days.
3½.....	28 years 208 days.	20 years 54 days.
4.....	25 years.	17 years 246 days.
4½.....	22 years 81 days.	15 years 273 days.
5.....	20 years.	15 years 75 days.
6.....	16 years 8 months.	12 years 327 days.
7.....	14 years 104 days.	10 years 89 days.
8.....	12½ years.	9 years 2 days.
9.....	11 years 40 days.	8 years 16 days.
10.....	10 years.	7 years 100 days.

THE APPLICATION OF COMPOUND INTEREST.

Direct compound interest is illegal in all the States. But every man that loans his money and keeps it out at a legal rate of interest, receives and makes a compound rate of interest. He annually collects his interest, and that in turn loaned out again makes an accumulation equal to a regular compound rate of interest.

EXAMPLE:—If Captain Newport, at his first landing at Jamestown, Virginia, in 1607, had loaned out \$100 at compound interest, it would now equal a sum greater than the entire wealth of the United States.

COMPOUND INTEREST TABLE.

Showing the amount of \$1 from 1 to 15 years at compound interest, interest added semi-annually, at different rates. This table will be found valuable in computing interest on Savings Bank deposits, &c.

YEARS	3 Per Cent.	4 Per Cent.	5 Per Cent.	6 Per Cent.	7 Per Cent.	8 Per Cent.	10 Per Cent.
½	1.015000	1.020000	1.025000	1.030000	1.035000	1.040000	1.050000
1	1.030225	1.040400	1.050625	1.060900	1.071225	1.081600	1.102500
1½	1.045678	1.061208	1.076890	1.092727	1.108718	1.124864	1.157625
2	1.061363	1.082432	1.103813	1.125509	1.147523	1.169858	1.215506
2½	1.077284	1.104081	1.131408	1.159274	1.187686	1.216653	1.276281
3	1.093443	1.126162	1.159693	1.194052	1.229255	1.265319	1.340095
3½	1.109845	1.148685	1.188635	1.229874	1.272279	1.315931	1.407100
4	1.126492	1.171659	1.218403	1.266770	1.316809	1.368569	1.477455
4½	1.143390	1.195092	1.248863	1.304773	1.363897	1.423312	1.551328
5	1.160541	1.218994	1.280084	1.343916	1.410598	1.480244	1.628894
5½	1.177949	1.243374	1.312086	1.384234	1.459969	1.539454	1.710339
6	1.195618	1.268241	1.344888	1.425761	1.511068	1.601032	1.795856
6½	1.213552	1.293606	1.378511	1.468533	1.563956	1.665073	1.885649
7	1.231755	1.319478	1.412973	1.512589	1.618694	1.731676	1.979931
7½	1.250232	1.345868	1.448298	1.557967	1.675349	1.800943	2.078928

COMPOUND INTEREST TABLE. — CONTINUED.

YEARS	3	4	5	6	7	8	10
	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.	Per Cent.
8	1.268985	1.372785	1.484505	1.604706	1.733986	1.872981	2.182874
8½	1.288020	1.400241	1.521618	1.652847	1.794675	1.947900	2.292019
9	1.307340	1.428246	1.559658	1.702433	1.857489	2.025816	2.406619
9½	1.326950	1.456811	1.598650	1.753506	1.922501	2.106849	2.526950
10	1.346855	1.485947	1.638616	1.806111	1.989789	2.191123	2.653297
10½	1.367058	1.515666	1.679581	1.860294	2.059431	2.278768	2.785962
11	1.387563	1.545980	1.721571	1.916103	2.131511	2.369919	2.925260
11½	1.408377	1.576899	1.764616	1.973586	2.206114	2.464715	3.071522
12	1.429503	1.608437	1.808726	2.032794	2.283328	2.563304	3.225100
12½	1.450945	1.640606	1.853944	2.093778	2.363245	2.665836	3.386355
13	1.472709	1.673418	1.900292	2.156591	2.445959	2.772470	3.555672
13½	1.494800	1.706886	1.947800	2.221289	2.531567	2.883368	3.733456
14	1.517222	1.741024	1.996595	2.287927	2.620172	2.998703	3.920129
14½	1.539980	1.775845	2.046407	2.356565	2.711878	3.118651	4.116135
15	1.563080	1.811361	2.097567	2.427262	2.806793	3.243397	4.321940

Example.—What will \$400. amount to in 8 years and 6 months at 4 per cent. compound interest, interest added semi-annually? Referring to table, it is found \$1. in 8 years and 6 months at 4 per cent. will amount to \$1.400241. The amount of \$400. will be 400 times this or \$560.0964.

NOTE.—If the interest only be wanted, deduct the principal \$400. from \$560.0964.

Possibilities of Compound Interest.

An Idaho correspondent sends the New York *Tribune* a photograph of an old Idaho mortgage, which shows in a startling way the amazing possibilities of compound interest. The mortgage was executed in 1861, on a piece of land in Boise City, "to secure the sum of \$340, if paid in legal tender, with interest, at the rate of 10 per cent. per month. But if the said note shall not be paid.....then the sum of \$170, with interest, at 10 per cent. per month, and if said interest is not paid at the time of maturity of this note, said interest to be added to the principal, and said principal and interest together shall draw interest per month as above stated." These conditions were evidently not fulfilled, for a note is appended to the document as follows: "The above mortgage is not satisfied, according to the records of Ada County. With interest on \$170, at 10 per cent. per month, compounded every six months, the debt would now amount to \$45,972,003,182,826.50." There are a great many millionaires in the country, but there is probably only one man in the world who is indebted in the sum of nearly forty-six trillions of dollars.



How to Find the Number of Yards of Carpet to Cover a Floor.

Rule.—Multiply the length of the room in feet by the width in feet, and divide the result by the number of square feet in one yard of carpeting, and the result will equal the number of yards of carpeting it will take to cover the floor.

NOTE.—To find the number of square feet in one yard of carpet, multiply the width of your carpet by 3 (the length of one yard), and the result will be the number of square feet in one yard.

Or for greater accuracy, multiply the length of the room in inches by the width in inches, and divide the result by the number of square inches in one yard of your carpet.

Or divide the width of your carpet in inches into the width of the room in inches, and the result will be the number of strips, multiply the number of strips by the length of your room, and the result will equal the number of yards of carpeting to cover the floor.

Example: A room is 12 feet 9 inches by 14 feet 6 inches, which I wish to cover with carpet one yard wide.

Solution: $12\frac{3}{4} \div 14\frac{1}{2} = 184\frac{1}{2}$ square feet in the room.

$184\frac{1}{2} \div 9 = 20\frac{1}{2}$ yards, nearly.

Or by inches, 12 ft. and 9 in. = 153 inches.

14 ft. and 6 in. = 174 inches.

$153 \div 174 = 26622$ square inches in the floor.

$26622 \div 1296$ (sq. in. in one yd.) = $20\frac{1}{2}$ yds. nearly.

How to Find the Amount of Paper to Paper a Room.

Measure the distance around the room ; deduct the width of each window and door ; take $\frac{2}{3}$ of the result, and it will equal the number of strips required. Divide the result thus found by the number of strips that can be cut from one roll, and it will equal the number of rolls required to paper the room.

Each roll is $1\frac{1}{2}$ feet wide, 24 feet long and contains 36 square feet or 4 square yards.

How to Find the Contents of a Watering-Trough.

Rule.—Multiply the height in feet by the length in feet, and the product by the width in feet, and divide the result by 4, and you will have the contents in barrels or $31\frac{1}{2}$ gallons each.

Example : What is the contents of a watering trough 8 feet long, 4 feet wide, and 3 feet deep ?

Solution : $3 \times 4 \times 8 \div 4 = 24$ barrels.

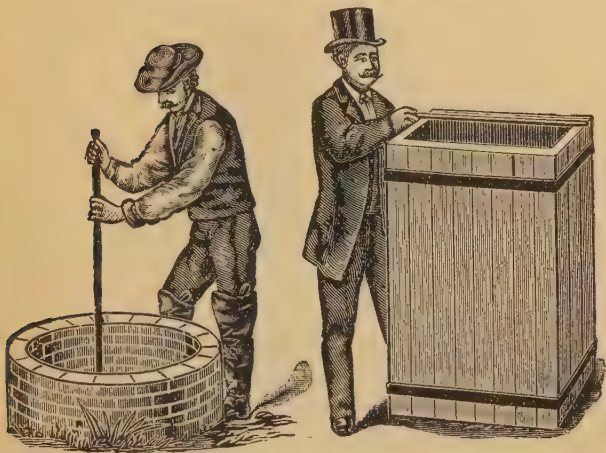
NOTE.—For exact results multiply the length in inches by the height in inches, by the width in inches, and divide the result by 231, and you will have the contents in gallons.

Table for Finding the Contents of Square Tanks.

A Tank	Five feet by five feet holds	6	barrels.
"	Six feet by six feet holds.....	$8\frac{1}{2}$	"
"	Seven feet by seven feet holds....	$11\frac{1}{2}$	"
"	Eight feet by eight feet holds.....	$15\frac{1}{4}$	"
"	Nine feet by nine feet holds.....	$19\frac{1}{2}$	"
"	Ten feet by ten feet holds.....	$23\frac{3}{4}$	"

The above table is for one foot of depth only.

To find the contents of a trough, measure its depth in feet and multiply it by the contents of one foot in depth.



Shorter Forms of How to Find the Contents of Cylindrical Cisterns, Tanks, Etc.

If you cut the largest possible square from a circle drawn on paper, the square will be a little more than $\frac{3}{4}$ of the whole circle. Therefore, to find the area of a circle, take $\frac{3}{4}$ of the square of the diameter (or for exactness .78) and the result will be the area of the circle.

Rule.—Multiply the square of the diameter of the cistern in feet, by the height in feet, and divide this result by 5, and it will equal the number of barrels the cistern will hold (approximately). (Or for exact results, instead of dividing by 5, take $\frac{3}{16}$ of the product.

Example: A cistern is 5 feet in diameter, and 8 feet deep. How many barrels will it hold?

Solution: $5 \times 5 \times 8 = 200$.

$200 \div 5 = 40$ barrels. **Ans.**

To find the number of gallons, multiply by $31\frac{1}{2}$.

To Find the Number of Barrels in a Square Cistern.

Multiply the height, width and depth together, and divide the product obtained by 4 (or for exactness, by 4.2), and the result will equal the number of barrels of $31\frac{1}{2}$ gals. each, the cistern will hold.

Example: $4 \times 8 \times 5 = 160$.

$160 \div 4 = 40$ barrels



How to Find the Contents of a Round Tank.

Multiply the square of the diameter in feet by the depth in feet, and multiply this result by 6, and you have the approximate contents of the tank in gallons. (For exact results multiply the product by $5\frac{1}{8}$, instead of 6.)

Example : How many gallons will a tank hold 6 feet in diameter and 8 feet deep ?

Solution : $6 \times 6 \times 8 = 288$.

$288 \times 6 = 1728$ gallons. **Ans.**

NOTE.—If the tank is larger at the bottom than at the top, find the average diameter by measuring the middle part of the tank, half way between the top and bottom.

FOR MORE EXACT RESULTS.

Rule.—Multiply the square of the diameter in feet by the depth in feet, and multiply this result by 47, and divide the product by 8, and you will have the number of gallons.

NOTE.—In calculating the capacity of tanks, $31\frac{1}{2}$ gallons are estimated to one barrel, and 63 gallons to one hogshead.

A TABLE FOR CIRCULAR TANKS ONE FOOT IN DEPTH.

Five feet in diameter holds.....	$4\frac{1}{2}$ barrels.
Six feet in diameter holds.....	$6\frac{3}{4}$ “
Seven feet in diameter holds.....	9 “
Eight feet in diameter holds.....	12 “
Nine feet in diameter holds.	15 “
Ten feet in diameter holds.....	$19\frac{1}{2}$ “

N. B.—To find the contents of a tank by the table, multiply the contents of one foot in depth by the number of feet deep.



FINDING THE CONTENTS OF A BARREL. BARRELS.

In measuring cisterns, reservoirs, vats, etc., the barrel is estimated at $31\frac{1}{2}$ gallons, and the hogshead at 63 gallons.

A gallon of water weighs nearly $8\frac{1}{8}$ pounds, avoirdupois

A pint is generally estimated as a pound

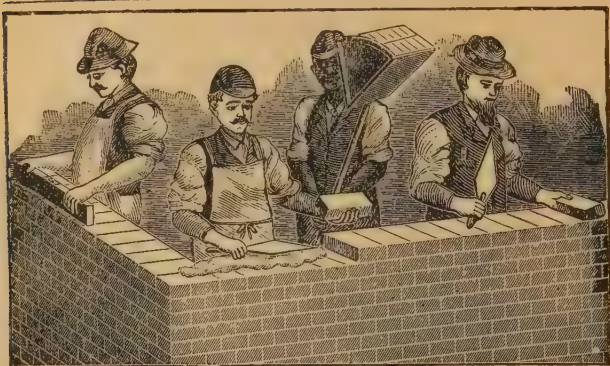
How to Find the Contents of Barrels and Casks.

Rule.—Add together the diameters of the bung and head in inches, and divide the sum by 2, and its result will equal the average diameter. Then multiply the square of the average diameter by the length in inches and multiply this result by 34 and cut off the four right hand figures, and you will have the number of gallons.

Example: How many gallons in a barrel whose bung diameter is 22 inches, head diameter 18 inches, and length 30 inches?

Solution: $22 + 18 \div 2 = 20$, average diameter. $20 \times 20 \times 30 \times 34 = 40,8000$, or $40\frac{1}{4}$ gallons.

NOTE.—Barrels used in commerce are made in various sizes, from 30 to 50 gallons. There is no definite measure called a hogshead, they are usually gauged, and have their capacities in gallons marked on them.



BRICK.

Common brick are usually 8 inches long, 4 inches wide, and 2 inches thick, and masons generally estimate $22\frac{1}{2}$ brick to the cubic foot. One-sixth of the space is generally given to mortar.

The following rule is generally used by builders, as some allowance must be made for broken and lost brick in putting up a building:

How to Find the Number of Common Brick in a Wall or Building.

A BRICK is 8 inches long, 4 inches wide and two inches thick, and contains 64 cubic inches. Twenty-seven brick make one cubic foot of wall without mortar, and it takes from 20 to 22 bricks according to the amount of mortar used to make a cubic foot of wall with mortar.

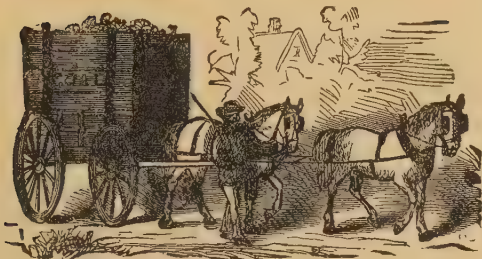
Rule—Multiply the length of the wall in feet by the height in feet, and that by its thickness in feet, and then multiply that result by 20, and the product will be the number of bricks in the wall.

Example : How many bricks in a wall 3 feet long, 20 feet high, and 18 inches thick ?

Solution : $30 \text{ length} \times 20 \text{ height} \times 1\frac{1}{2} \text{ thick} = 900 \times 20 = 18,000.$ Ans.

N. B.—For a wall 8 inches thick, multiply the length in feet by the height in feet, and that result by 15, and the product will equal the number of bricks.

When doors and windows occur in the wall, multiply their height, width and thickness together, and deduct the amount from the solid contents of the wall before multiplying by 20 or 15, as the case may be.



How to Calculate the WEIGHT of Coal in a Bin or Box.

A solid cubic foot of anthracite coal weighs about 93 pounds. When broken for use it weighs about 54 pounds. Bituminous coal when broken up for use weighs about 50 pounds.

Rule.—Multiply the length in feet by the height in feet, and again by the breadth in feet, and this result by 54 for anthracite coal, or by 50 for bituminous coal, and the result will equal the number of pounds.

To find the number of tons, divide by 2,000.

Example: A coal bin is 10 feet long, 8 feet wide, and 5 feet high. How many tons of anthracite coal will it hold?

Solution: $10 \times 8 \times 5 \times 54 = 21,600$. $21,600 \div 2,000 = 10$ tons and 1,600 pounds.

Amount of Charcoal in a Bin.

Multiply length, breadth and height (all in inches) together and divide by 2571, the number of cubic inches in a bushel.

How to Find the Number of Cords in a Pile of Wood.

A cord of wood is a pile 8 feet long, 4 feet wide and 4 feet high and contains 128 cubic feet.

Rule.—Multiply the length in feet by the width in feet and that result by the length in feet and divide the product by 128 and you have the number of cords.

Example: How many cords in a pile of wood 4 feet wide, 7 feet high, 24 feet long?

Solution: $4 \times 7 \times 24 = 672$ cubic feet. $672 \div 128 = 5\frac{1}{4}$ cords. Ans.

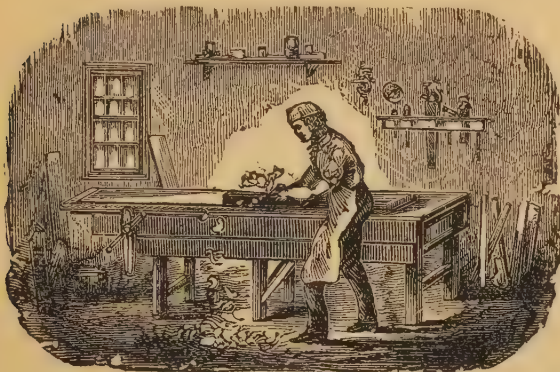
PRICE OF WOOD PER CORD.

EXPLANATION.—Find the number of feet in the left-hand column of the Table, then the price in dollars and cents at the top of the Table, and trace the line and column until they meet, and you will find the amount in dollars and cents.

RATE PER CORD.

Ft.	\$1.50	\$1.75	\$2.00	\$2.25	\$2.50	\$2.75	\$3.00	\$3.25	\$3.50	\$4.00	\$4.50	\$5.00	\$5.50	\$6.00
1	.01	.01	.01	.02	.02	.02	.02	.02	.02	.03	.03	.03	.04	.04
2	.02	.02	.03	.03	.04	.04	.05	.05	.05	.06	.07	.07	.08	.09
3	.03	.04	.04	.05	.06	.06	.07	.07	.08	.09	.10	.11	.12	.14
4	.05	.06	.06	.07	.08	.09	.09	.10	.10	.12	.14	.15	.17	.18
5	.06	.07	.08	.09	.10	.11	.12	.13	.13	.15	.17	.19	.21	.23
6	.07	.08	.09	.11	.12	.13	.14	.15	.16	.18	.21	.23	.25	.28
7	.08	.10	.11	.12	.14	.15	.16	.17	.19	.21	.24	.27	.30	.32
8	.09	.11	.12	.14	.16	.18	.19	.20	.21	.24	.28	.31	.34	.37
16	.19	.22	.25	.28	.31	.35	.37	.40	.43	.49	.56	.62	.68	.74
24	.28	.33	.37	.42	.47	.52	.56	.61	.65	.75	.84	.93	1.03	1.12
32	.38	.44	.50	.56	.63	.69	.75	.81	.87	1.00	1.12	1.25	1.37	1.50
40	.47	.55	.63	.70	.78	.86	.94	1.02	1.09	1.25	1.40	1.56	1.72	1.87
48	.56	.66	.75	.84	.94	1.03	1.12	1.22	1.31	1.50	1.68	1.87	2.06	2.25
56	.61	.77	.88	.98	1.09	1.20	1.31	1.42	1.53	1.75	1.96	2.18	2.40	2.62
64	.75	.88	1.00	1.13	1.25	1.38	1.50	1.62	1.75	2.00	2.25	2.50	2.75	3.00
72	.84	.98	1.13	1.27	1.41	1.55	1.69	1.83	1.96	2.25	2.53	2.81	3.09	3.37
80	.94	1.09	1.25	1.41	1.56	1.72	1.88	2.03	2.18	2.50	2.81	3.13	3.43	3.74
84	.98	1.15	1.31	1.48	1.64	1.81	1.97	2.13	2.29	2.62	2.95	3.28	3.60	3.94
88	1.03	1.20	1.38	1.55	1.72	1.89	2.06	2.23	2.40	2.75	3.09	3.43	3.78	4.12
92	1.08	1.26	1.44	1.62	1.80	1.98	2.15	2.33	2.51	2.87	3.23	3.59	3.95	4.30
96	1.13	1.31	1.50	1.69	1.88	2.06	2.25	2.44	2.62	3.00	3.37	3.75	4.12	4.49
104	1.22	1.42	1.63	1.83	2.03	2.23	2.44	2.64	2.84	3.25	3.65	4.05	4.47	4.78
112	1.31	1.53	1.75	1.97	2.19	2.41	2.62	2.84	3.06	3.50	3.93	4.38	4.80	5.24
120	1.41	1.64	1.88	2.11	2.34	2.58	2.81	3.05	3.28	3.75	4.21	4.68	5.15	5.62
128	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	4.00	4.50	5.00	5.50	6.00

EXAMPLE—104 feet at \$3.25 = \$2.64.



A COMPLETE SET OF CARPENTER'S RULES.

PLAIN, SIMPLE AND PRACTICAL.

1. **THE GABLE** is a space the form of a triangle on the end of a building, with a common double roof.
2. **QUARTER PITCH.**—Is a roof that is one-fourth as high as the width of the building.



Rule.—To find the area of the gable end, multiply the width of the building by the height of the roof, and take one-half of the result. Or, if the roof is "quarter pitch," find the area by multiplying the width of the roof by $\frac{1}{2}$ of itself.

3. To find the number of feet of stock boards to cover a house or barn.

Rule.—Multiply the distance around the barn by the height of the posts, and to this result add the area of the two gable ends. (If there are many openings, allowance should be made for them).

4. **SHINGLES.**—There are 250 shingles in a bunch.

Rule.—900 shingles, laid 4 inches to the weather, will cover 100 square feet, and 800 shingles laid $4\frac{1}{2}$ inches to the weather, will cover 100 square feet.

5. **FLOORS AND SIDING.**—To find the number of feet of six-inch *matched flooring* for a given floor. Find the number of square feet of surface to be covered, and add $\frac{1}{4}$ of itself to it, and the result will be the required number of feet.

6. **For 3-INCH FLOORING.** Find the number of square feet to be covered, to which add $\frac{1}{3}$ of itself.

7. **LATH**—50 in a bunch.

Contractor's Rule.—One bunch of lath will cover 3 square yards.

How to Find the Number of Shingles Required for a Roof.

Rule.—Multiply the length of the ridge pole by twice the length on one rafter, and, if the shingles are to be exposed $4\frac{1}{2}$ inches to the weather, multiply by 8, and if exposed 5 inches to the weather, multiply by 7, and you have the number of shingles.

NOTE.—Shingles are 16 inches long, and average about 4 inches wide. They are put up in bundles of 250 each.

How to Find the Number of Laths for a Room.

Laths are 4 feet long and $1\frac{1}{2}$ inches wide, and 16 laths are generally estimated to the square yard.

RULE.—Find the number of square yards in the room and multiply by 16, and the result will equal the number of laths necessary to cover the room.

The Actual Weight of Dry Pine Lumber.

Timber.....	3 lbs. per ft.	White Pine Flooring.....	1.9 lbs. per ft.
Joists.....	2.8 " " "	Norway Flooring.....	2.3 " " "
Inch Lumber (rough)	2.6 " " "	Shingles.....	250 " " M.
Inch " (dressed)	2.3 " " "	Laths	500 " " M.

How to Make an Ice Chest.

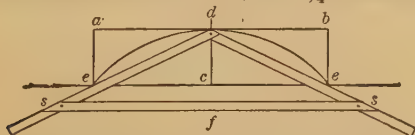
Take two dry goods boxes, one enough smaller than the other to leave a space of 3 or 4 inches all around when placed inside the larger box. Pack this space between the two boxes closely with sawdust, and make a heavy cover to fit neatly inside the top of the larger box. A small pipe inserted in the bottom of the chest will carry off the waste water. For family use and all ordinary purposes it will be as serviceable as refrigerators costing twenty-five times as much.



How to Find the Length and Bevels of Rafters.

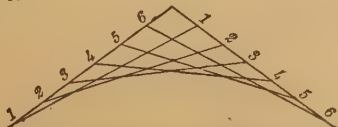
1. Place your steel square on a board (say the building is 40 feet long) 20 inches from the corner one way, and seven inches the other, and mark it as shown in the above figure. Now the angle at C. will be the bevel of the upper end, and the angle at d, the bevel at the lower end of the rafter.

2. LENGTH OF RAFTER.—The length will be from a to b on the outer edge of the board. The 20 inches shows the 20 feet or half of the width of the building, the 7 inches the seven foot rise. Now the distance from a to b, on the edge of the board, is 21 inches, two-twelfths and one-quarter of a twelfth, (always use a square with inches on one side divided into twelfths) therefore this rafter will be 21 feet and $2\frac{1}{4}$ inches long.



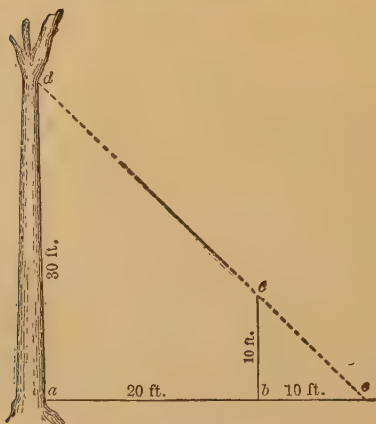
How to Make a Curve with a Set Triangle.

1. In the above figure let a, b, represent the length, and c, d, the height of the curve. Drive two awls at e and e; then take two strips, marked s.s., and nail them together at the point d, and spread out the sides to the awls at e and e. Then tack on the brace f, hold a pencil at the point d, then move the point towards the point e both ways, be sure and keep the strips s.s. hard against the awls at e and e, and the pencil will mark out the exact curve.



How to Make the Curves for Brick and Stone Arches.

Measure the width, and draw the figure as above. If the points in 1, 2, 3, 4, etc., are equal on both sides, the curve will be an exact part of a circle.



How to Find the Height of a Tree.

Suppose you desire a log 30 ft. long, measure off from the base of the tree 30 ft. (allow for the height of the stump), then measure ten feet back, and put your ten-foot pole at *b*, let some one hold it the height of the stump from the ground, then put your eye at *e*, looking over the top of the pole at *c*, and where the eye strikes the tree at *d*, will be 30 feet from *a*.

N.B.—This rule will apply to any tree, or any height. The principles hold true in any case.

How to Find the Height by Measuring the Shadow.

RULE.—Measure a pole, and hold it perpendicular in the sun, and measure its shadow, then measure the shadow of the tree whose height is desired. Then multiply the length of the pole by the length of the tree's shadow, and divide the product by the length of the shadow of the pole, and the result will be the height of the tree.

Example :—If a pole 3 feet long casts a shadow $4\frac{1}{2}$ feet long, what is the height of a tree whose shadow measures 180 feet?

Solution :— $180 \times 3 \div 4\frac{1}{2} = 120$ feet, the height of the tree.



How to Ascertain the Number of Feet (Board Measure) in a Log.

Rule: Subtract from the diameter of the log in inches, 4 inches (for slabs), one-fourth of this result squared and multiplied by the length in feet, will give the correct amount of lumber made from any log.

Example:—How many feet of lumber can be made from a log which is 36 inches in diameter and 10 feet long?

Solution:—From 36 (diameter) subtract 4 (for slabs)=32. Take $\frac{1}{4}$ of 32 =8, which multiplied by itself equals 64. Then multiply 64 by 10 (length) =640. **Ans.**

ROPP'S RULE: Square the diameter in inches and subtract 60 from the result, then multiply this result by the length and divide by 2, and cut off the right hand figure.

How to Reduce Logs to Square Timber.

Rule: Multiply the square of the diameter in inches by the length of the log in feet and divide the result by 300, and the result will equal the number of cubic feet.

Example: How many cubic feet in a log 30 inches in diameter and 20 feet long?

Solution: $30 \times 30 \times 20 \div 300$ —**Ans.** 60 cubic feet.



THE LIGHTNING METHOD FOR MEASURING LUMBER.

1. **A FOOT OF LUMBER** is one foot long, one foot wide and one inch thick.

2. **PIECE STUFF OR DIMENSION STUFF** is lumber that is two or more inches thick and of uniform width and length.

3. **SCANTLING** is usually from three to four inches wide and from two to four inches thick.

4. **JOIST** is 2-inch lumber of any width.

5. **PLANK** is two inches in thickness and wider than a scantling.

Rule for 12-foot Boards: Find the width of the boards in inches and add together, and the sum obtained will be equal to the number of feet in the pile. (Each inch in width equals one foot of lumber.)

Note: Use no fractions. If a board is between 9 and 10 inches wide, but nearer 9 than 10, call it 9; if nearer 10 than 9, call it 10. If it is $9\frac{1}{2}$, call it either 9 or 10.

For 14-foot Boards add the width of the boards in inches, and to the sum add $\frac{1}{6}$ of itself, and the result will equal the number of feet in the pile.

For 16-foot Lumber, add the width of the boards in inches and to that sum add $\frac{1}{8}$ of itself, and you will have the number of feet in the pile.

Example: How many feet of lumber in 10 boards, 9 inches wide, and 16 feet long?

Solution, $10 \times 9 = 90$.

$\frac{1}{8}$ of $90 = 30$.

$30 + 90 = 120$, the number of feet.



JOISTS, SCANTLING AND TIMBER MEASUREMENT.

Size in Inches.	Length in Feet.									
	12	14	16	18	20	22	24	26	28	30
2 x 4.....	8	9	11	12	13	15	16	17	19	20
2 x 6.....	12	14	16	18	20	22	24	26	28	30
2 x 8.....	16	19	21	24	27	29	32	35	37	40
2 x 10.....	20	23	27	30	33	37	40	43	47	50
2 x 12.....	24	28	32	36	40	44	48	52	56	60
3 x 4.....	12	14	16	18	20	22	24	26	28	30
3 x 6.....	18	21	24	27	30	33	36	39	42	45
3 x 8.....	24	28	32	36	40	44	48	52	56	60
3 x 10.....	30	35	40	45	50	55	60	65	70	75
3 x 12.....	36	42	48	54	60	66	72	78	84	90
4 x 4.....	16	19	21	24	27	29	32	35	37	40
4 x 6.....	24	28	32	36	40	44	48	52	56	60
4 x 8.....	32	37	43	48	53	59	64	69	75	80
4 x 10.....	40	47	53	60	67	73	80	87	93	100
4 x 12.....	48	56	64	72	80	88	96	104	112	120
6 x 6.....	36	42	48	54	60	66	72	78	84	90
6 x 8.....	48	56	64	72	80	88	96	104	112	120
6 x 10.....	60	70	80	90	100	110	120	130	140	150
6 x 12.....	72	84	96	108	120	136	144	156	168	180
8 x 8.....	64	75	85	96	107	117	128	139	149	160
8 x 10.....	80	93	107	120	133	147	160	173	187	200
8 x 12.....	96	112	128	144	160	176	192	208	224	240
10 x 10.....	100	117	133	150	167	183	200	217	233	250
10 x 12.....	120	140	160	180	200	220	240	260	280	300
12 x 12.....	144	168	192	216	240	264	288	312	336	360
12 x 14.....	168	196	224	252	280	308	336	364	392	420
14 x 14.....	196	229	261	294	327	359	392	425	457	490

Example: A timber 12 by 14 inches, 18 feet long, contains 252 square feet

Board and Plank Measurement—At Sight.

This table gives the sq. ft. and inches in Board from 6 to 25 in. wide, and from 8 to 36 ft. long. If a board be longer than 36 ft., unite two numbers. Thus, if a board is 40 ft. long, and 16 in. wide, add 30 and 10 and you have 63 ft. 4 inches. For 2 in. plank double the product.

Feet Long.	6 in.	7 in.	8 in.	9 in.	10 in.	11 in.	12 in.	13 in.	14 in.	15 in.
	w. ft.in.	w. ft.in.	w. ft.in.	w. ft.in.	w. ft.in.	w. ft.in.	w. ft.in.	w. ft.in.	w. ft.in.	w. ft.in.
8...	4 0	4 8	5 4	6 0	6 8	7 4	8 0	8 8	9 4	10 0
9...	4 6	5 3	6 0	6 9	7 6	8 3	9 0	9 9	10 6	11 3
10...	5 0	5 10	6 8	7 6	8 4	9 2	10 0	10 10	11 8	12 6
11...	5 6	6 5	7 4	8 3	9 2	10 1	11 0	11 11	12 10	13 9
12...	6 0	7 0	8 0	9 0	10 0	11 0	12 0	13 0	14 0	15 0
13...	6 6	7 7	8 8	9 9	10 10	11 11	12 12	13 13	14 14	15 15
14...	7 0	8 2	9 4	10 6	11 8	12 10	13 12	14 14	15 16	16 18
15...	7 6	8 9	10 0	11 3	12 6	13 9	15 0	16 3	17 6	18 9
16...	8 0	9 4	10 8	12 0	13 4	14 8	16 0	17 4	18 8	20 0
17...	8 6	9 11	11 4	12 9	14 2	15 7	17 0	18 5	19 10	21 3
18...	9 0	10 6	12 0	13 6	15 0	16 6	18 0	19 6	21 0	22 6
19...	9 6	11 1	12 8	14 3	15 10	17 5	19 0	20 7	22 2	23 9
20...	10 0	11 8	13 4	15 0	16 8	18 4	20 0	21 8	23 4	25 0
21...	10 6	12 3	14 0	15 9	17 6	19 3	21 0	22 9	24 6	26 3
22...	11 0	12 10	14 8	16 6	18 4	20 2	22 0	23 10	25 8	27 6
23...	11 6	13 5	15 4	17 3	19 2	21 1	23 0	24 11	26 10	28 9
24...	12 0	14 0	16 0	18 0	20 0	22 0	24 0	26 0	28 0	30 0
25...	12 6	14 7	16 8	18 9	20 10	22 11	25 0	27 1	29 2	31 3
26...	13 0	15 2	17 4	19 6	21 8	23 10	26 0	28 2	30 4	32 6
27...	13 6	15 9	18 0	20 3	22 6	24 9	27 0	29 3	31 6	33 9
28...	14 0	16 4	18 8	21 0	23 4	25 8	28 0	30 4	32 8	35 0
29...	14 6	16 11	19 4	21 9	24 2	26 7	29 0	31 5	33 10	36 3
30...	15 0	17 6	20 0	22 6	25 0	27 6	30 0	32 6	35 0	37 6
31...	15 6	18 1	20 8	23 3	25 10	28 5	31 0	33 7	36 2	38 9
32...	16 0	18 8	21 4	24 0	26 8	29 4	32 0	34 8	37 4	40 0
33...	16 6	19 3	22 0	24 9	27 6	30 3	33 0	35 9	38 6	41 3
34...	17 0	19 10	22 8	25 6	28 4	31 2	34 0	36 10	39 8	42 6
35...	17 6	20 5	23 4	26 3	29 2	32 1	35 0	37 11	40 10	43 9
36...	18 0	21 0	24 0	27 0	30 0	33 0	36 0	39 0	42 0	45 0

	16 in.	17 in.	18 in.	19 in.	20 in.	21 in.	22 in.	23 in.	24 in.	25 in.
8...	10 8	11 4	12 0	12 8	13 4	14 0	14 8	15 4	16 0	16 8
9...	12 0	12 9	13 6	14 3	15 0	15 9	16 6	17 3	18 0	18 9
10...	13 4	14 2	15 0	15 10	16 8	17 6	18 4	19 2	20 0	20 10
11...	14 8	15 7	16 6	17 5	18 4	19 3	20 2	21 1	22 0	22 11
12...	16 0	17 0	18 0	19 0	20 0	21 0	22 0	23 0	24 0	25 0
13...	17 4	18 5	19 6	20 7	21 8	22 9	23 10	24 11	26 0	27 1
14...	18 8	19 10	21 0	22 2	23 4	24 6	25 8	26 10	28 0	29 2
15...	20 0	21 3	22 6	23 9	25 0	26 3	27 6	28 9	30 0	31 3
16...	21 4	22 8	24 0	25 4	26 8	28 0	29 4	30 8	32 0	33 4
17...	22 8	24 1	25 6	26 11	28 4	29 9	31 2	32 7	34 0	35 5
18...	24 0	25 6	27 0	28 6	30 0	31 6	33 0	34 6	36 0	37 6
19...	25 4	26 11	28 6	30 1	31 8	33 3	34 10	36 5	38 0	39 7
20...	26 8	28 4	30 0	31 8	33 4	35 0	36 8	38 4	40 0	41 8
21...	28 0	29 9	31 6	33 3	35 0	36 9	38 6	40 3	42 0	43 9
22...	29 4	31 2	33 0	34 10	36 8	38 6	40 4	42 2	44 0	45 10
23...	30 8	32 7	34 6	36 5	38 4	40 3	42 2	44 1	46 0	47 11
24...	33 0	34 0	36 0	38 0	40 0	42 0	44 0	46 4	48 0	50 0
25...	34 4	35 5	37 6	39 7	41 8	43 9	45 10	47 11	50 0	52 1
26...	35 8	36 10	39 0	41 2	43 4	45 6	47 8	49 10	52 0	54 2
27...	36 0	38 3	40 6	42 9	45 0	47 3	49 6	51 9	54 0	56 3
28...	37 4	39 8	42 0	44 4	46 8	49 0	51 4	53 8	56 0	58 4
29...	38 8	41 1	43 6	45 11	48 4	50 9	53 2	55 7	58 0	60 5
30...	40 0	42 6	45 0	47 6	50 0	51 6	55 0	57 6	60 0	62 6

LUMBERING IN NORTHERN MICHIGAN.



HOW TO REDUCE LOGS TO INCH BOARD MEASURE.

L. Feet.	Diam. 12	Diam. 13	Diam. 14	Diam. 15	Diam. 16	Diam. 17	Diam. 18	Diam. 19	Diam. 20	Diam. 21	Diam. 22	Diam. 23	Diam. 24	Diam. 25	Diam. 26	Diam. 27	Diam. 28
10	40	50	62	75	90	105	122	140	160	180	202	225	250	275	302	330	360
11	44	55	69	83	99	116	135	154	176	198	223	248	275	302	333	363	396
12	48	61	75	91	108	126	147	169	192	217	243	271	300	331	363	397	432
13	52	66	81	98	117	137	159	183	208	235	263	293	325	358	393	430	468
14	56	71	88	106	126	148	171	197	224	253	283	313	350	386	433	463	504
15	60	76	94	113	135	158	184	211	240	271	303	336	375	413	453	496	540
16	64	81	100	121	144	169	196	225	256	289	324	359	400	441	484	530	576
17	68	86	106	128	153	179	208	239	272	307	344	383	425	468	514	563	612
18	72	91	112	136	162	190	220	253	288	325	364	406	450	496	544	596	648
19	76	96	119	143	171	201	232	267	304	343	384	429	475	523	574	630	684
20	80	101	125	151	180	211	244	280	320	361	404	452	500	550	605	661	720
21	84	106	131	158	189	222	257	295	336	379	425	473	525	579	635	693	756
22	88	111	137	166	198	232	269	309	352	397	445	496	550	605	665	726	792
23	92	116	144	174	207	243	281	323	368	415	465	519	575	632	695	760	828
24	96	122	150	181	216	254	294	338	384	433	486	541	600	662	726	794	864
25	100	127	156	189	225	264	308	351	400	451	506	562	625	689	756	827	900

L. Feet.	Diam. 29	Diam. 30	Diam. 31	Diam. 32	Diam. 33	Diam. 34	Diam. 35	Diam. 36	Diam. 37	Diam. 38	Diam. 39	Diam. 40	Diam. 41	Diam. 42	Diam. 43
10	391	422	456	490	526	562	601	640	681	723	765	810	850	903	952
11	430	465	502	539	578	619	661	704	749	795	842	891	942	994	1046
12	469	507	547	588	631	675	721	768	817	867	910	972	1027	1083	1141
13	508	549	592	637	684	731	781	832	884	939	996	1053	1113	1173	1237
14	547	591	638	686	736	787	841	896	953	1011	1070	1134	1198	1264	1331
15	586	633	683	735	789	844	901	960	1021	1083	1149	1215	1284	1354	1426
16	625	676	729	784	842	900	961	1024	1089	1156	1225	1296	1369	1444	1527
17	664	718	774	833	895	956	1021	1088	1157	1228	1302	1377	1455	1534	1616
18	703	761	820	882	946	1012	1081	1152	1225	1300	1379	1458	1541	1625	1711
19	742	803	865	931	999	1069	1141	1216	1293	1372	1455	1539	1626	1715	1806
20	782	845	912	980	1052	1125	1202	1280	1361	1446	1530	1620	1712	1805	1902
21	820	887	957	1029	1103	1181	1261	1344	1430	1518	1607	1701	1792	1896	1997
22	860	930	1004	1078	1156	1238	1322	1408	1497	1590	1684	1782	1882	1986	2091
23	898	972	1049	1127	1209	1295	1381	1472	1566	1662	1761	1863	1969	2077	2187
24	938	1014	1094	1176	1262	1350	1442	1536	1634	1734	1838	1944	2055	2166	2282
25	977	1056	1139	1225	1315	1406	1501	1600	1702	1806	1915	2025	2139	2256	2376

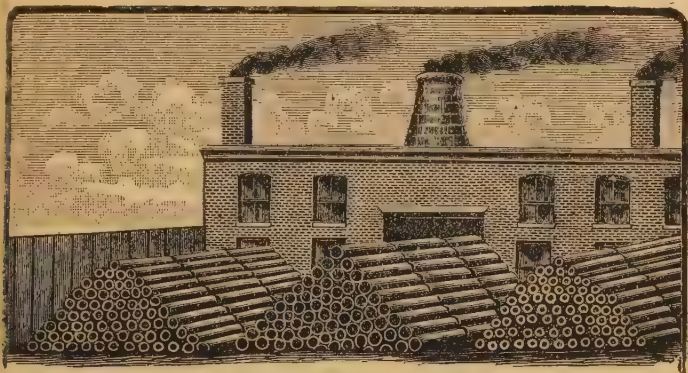
HOW TO USE THE LOG TABLE.

First find the average diameter of the log by adding together the two ends of the log, in inches; then divide by two and the result will equal the average diameter, and then apply the above table.

Example.—How many feet of lumber is there in a log 15 inches at one end and 21 inches at the other, and 22 feet long?

Solution.— $15+21=36$ one half of $36=18$ inches, the average diameter.

Then refer to the column under 18 inches opposite of 22 and you will find the answer—269 feet.



A TILE FACTORY.

HOW TO FIND THE CARRYING CAPACITY OF TILE.

GALLONS PER MINUTE.

SIZE OF TILE.	FALL PER 100 FEET.						
	1 in.	3 in.	6 in.	9 in.	12 in.	24 in.	36 in.
3-inch	13	23	32	40	46	64	79
4-inch	27	47	66	81	93	131	163
6-inch	75	129	183	224	258	364	450
8-inch	153	265	375	460	529	750	923
9-inch	205	355	593	617	711	1006	1240
10-inch	267	463	655	803	926	1310	1613
12-inch	422	730	1033	1273	1468	2076	2551

A large tile will carry more water according to its size than a small one. This is because there is less surface on the inside of the large tile compared with the size of stream, and therefore less friction. More water will flow through a straight tile than a crooked one having the same diameter.

EXAMPLE: A nine-inch tile at 6 inches fall to the 100 feet will flow 593 gals. per minute.

AREA AND WEIGHT OF TILE.

The following table shows the area and the weight of the different sized tile :

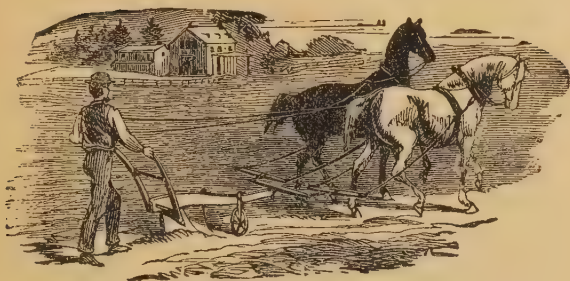
SIZE.	WEIGHT.	AREA.	SIZE.	WEIGHT.	AREA.
3 in.	5 lbs. ea.	8½ sq. in.	7 in.	15 lbs. ea.	41 sq. in.
3½ "	6 "	9½ "	8 "	18 "	53½ "
4 "	7 "	14 "	9 "	21 "	67 "
5 "	10 "	21½ "	10 "	24 "	80½ "
6 "	12 "	30½ "	12 "	28 "	113 "



CARRYING CAPACITY OF FREIGHT CARS.

ONE CAR-LOAD.

Salt.....	80 to 100 bbls.	Sheep.....	80 to 100 head.
Lumber....	8,000 to 13,000 feet.	Hay.....	10 tons.
Barley.....	417 to 833 bush.	Coal.....	12 to 20 tons.
Wheat.....	333 to 666 bush.	Stone.....	2 cords.
Corn.....	357 to 714 bush.	Tile, 3-inch...	6,000 feet.
Potatoes.....	333 to 666 bush.	Tile, 4-inch...	4,000 feet.
Oats.....	625 to 1,250 bush.	Tile, 6-inch...	2,500 feet.
Rye.....	357 to 714 bush.	Tile, 10-inch...	1,200 feet.
Cattle.....	16 to 24 head.	Tile, 12-inch...	1,000 feet.
Hogs.....	40 to 60 head.	Gravel.....	7 cubic yards.



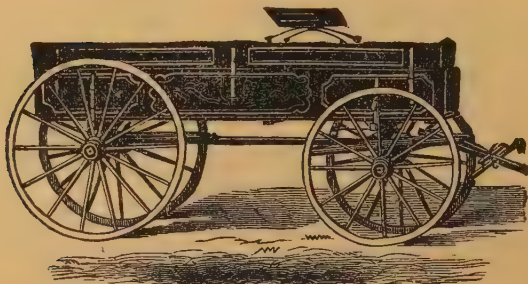
How to Find the Distance Traveled in Ploughing.

Showing the distance traveled by a horse in ploughing an acre of land, and the quantity of land cultivated per day, computed at the rate of 16 and 18 miles per day of 9 hours :

Breadth of furrow slice.		Space traveled in ploughing an acre.		Extent ploughed per day.		Breadth of furoow slice.		Space traveled in ploughing an acre.		Extent ploughed per day.	
Inch.	Miles.	18 Mi.	16 Mi.	Inch.	Miles.	18 Mi.	16 Mi.				
7	14 $\frac{1}{2}$	1 $\frac{1}{4}$	1 $\frac{1}{8}$	14	7	2 $\frac{1}{2}$	2 $\frac{1}{4}$				
8	12 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	15	6 $\frac{1}{2}$	2 $\frac{3}{4}$	2 $\frac{5}{8}$				
9	11	1 $\frac{3}{4}$	1 $\frac{1}{2}$	16	6 $\frac{1}{8}$	2 $\frac{9}{10}$	2 $\frac{3}{5}$				
10	9 $\frac{9}{10}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	17	5 $\frac{3}{4}$	3 $\frac{1}{10}$	2 $\frac{3}{4}$				
11	9	2	1 $\frac{3}{4}$	18	5 $\frac{1}{2}$	3 $\frac{1}{4}$	2 $\frac{9}{10}$				
12	8 $\frac{1}{4}$	2 $\frac{1}{2}$	1 $\frac{9}{10}$	19	5 $\frac{1}{2}$	3 $\frac{1}{2}$	3 $\frac{1}{10}$				
13	7 $\frac{1}{2}$	2 $\frac{1}{3}$	2 $\frac{1}{10}$	20	4 $\frac{9}{10}$	3 $\frac{1}{5}$	3 $\frac{1}{4}$				

General Observations.

1. There are 43,560 square feet in an acre.
2. A piece of land 1 foot wide and 43,560 feet long is one acre.
3. 43,560 feet equal $8\frac{1}{4}$ miles.
4. There are a less number of turns in ploughing a long and narrow field than in ploughing a square one containing the same number of acres.
5. It takes less fence per acre to inclose a square field than it does to inclose a long and narrow field containing the same number of acres.



How to Find the Contents of a Wagon Box.

A common Wagon Box is a little more than ten feet long and three feet wide, and will hold about two bushels for every inch in depth.

Rule.—Multiply the depth of the wagon box in inches by 2, and you have the number of bushels.

If the wagon box is 12 feet long, multiply the depth in inches by 2, and add one-tenth of the number of bushels to itself.

Example: How many bushels of grain will a wagon box hold 22 inches deep and 10 feet long?

Solution: $22 \times 2 = 44$. Ans.

N. B.—A bushel to the inch is calculated for corn on the cob.

How to Find the Number of Bushels of Grain in a Bin or Box.

Rule.—Multiply the length in feet by the height in feet, and then again by the breadth in feet, and then again by 8, and cut off the right hand figure. The last result will be the number of bushels.

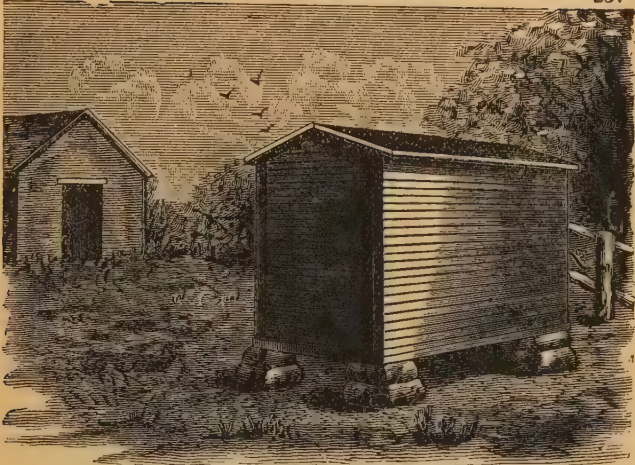
Example: How many bushels in a bin 12 feet long, 10 feet wide, and 6 feet high?

Solution: $12 \times 10 \times 6 \times 8 = 576.0$. Ans.

NOTE.—For exact results multiply the length in inches by the height in inches, and that again by the width in inches, and divide the result by 2150.4, the number of cubic inches in a bushel.

BUSHEL.

The dimensions of the bushel are $18\frac{1}{2}$ inches inner diameter; $19\frac{1}{2}$ inches outer diameter, and 8 inches deep; and when heaped, the cone is not to be less than 6 inches high; which makes a heaped bushel equal to $1\frac{1}{4}$ struck ones. To reduce U. S. dry measures to British ones of the same name, divide by 1.031516; to reduce British ones to U. S., multiply by 1.031516; or for common purposes use 1.032.



How to Measure Ear Corn in a Crib.

A bushel of corn means, either a bushel of shelled corn, or ear corn enough to make a bushel of shelled corn.

Rule.—Multiply the length in feet by the height in feet, and that again by the width in feet, multiply the result by 4, and cut off the right hand figure, and you have the contents in bushels of shelled corn.

Example : How many bushels of shelled corn in a crib of corn in the ear, 20 feet long, 10 feet high, and 8 feet wide ?

Solution : $20 \times 10 \times 8 \times 4 = 640.0$ bushels. **Ans.** This is counting $2\frac{1}{2}$ cubic feet to the bushel.

If the corn is medium good use the above rule. If good sound corn well settled multiply by 5 and cut off one figure instead of multiplying by 4.

When the crib is flared at the side multiply half the sum of the top and bottom widths in feet by the perpendicular height in feet, and then again by the length in feet, and then multiply the result by 4, and cut off the right hand figure.

Example : What is the contents of a crib 10 feet wide at the top, 6 feet wide at the bottom, 12 feet long, and 10 feet high ?

Solution : $10 + 6 \div 2 = 8$ feet average width. Then $12 \times 10 \times 8 \times 4 = 384.0$ bushels of shelled corn.

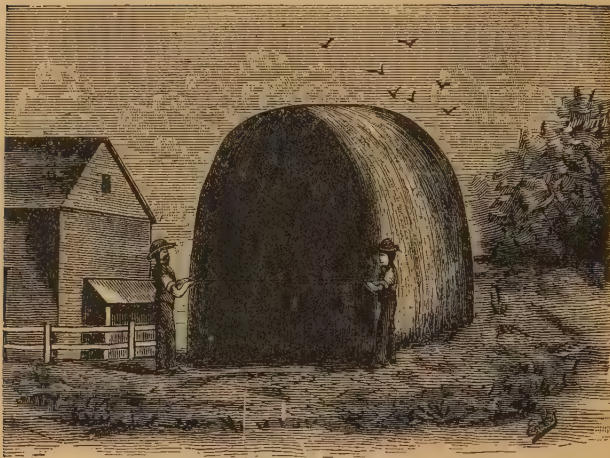
HOW TO FIND THE NUMBER OF HEAPED BUSHELS OF EAR CORN, APPLES OR POTATOES IN A CRIB OR BIN.

Rule.—Multiply the length in feet by the breadth in feet, and that again by the height in feet, and multiply the result by 6, and cut off the right hand figure, and that will equal the number of heaped bushels.

Example : How many bushels of potatoes in a bin 10 feet long, 8 feet wide, and 7 feet high ?

Solution : $10 \times 8 \times 7 \times 6 = 336.0$ heaped bushels

N. B.—Deduct $\frac{1}{2}$ for shuck.



How to Measure Hay in the Mow or Stack.

A ton of dry hay is variously estimated from 400 to 500 cubic feet to the ton.

To be on the safe side, it is best to estimate about 500 cubic feet to the ton.

HAY IN A MOW.

Rule.—Multiply the length in feet by the height in feet, and this by the breadth in feet, and divide the result by 500, and you have the number of tons.

Example: How many tons of hay in a mow 20 feet long, 10 feet high, and 15 feet wide?

Solution: $20 \times 10 \times 15 \div 500 = 6$. Ans.

HOW TO ESTIMATE THE NUMBER OF TONS IN A STACK.

Rule.—Multiply the length in feet by the width in feet, and this by one-half the height, and divide the product by 300.

Example: How many tons of hay in a stack 20 feet long, 12 feet high, and 15 feet wide?

Solution: $20 \times 15 \times 12 \div 300 = 6$ tons. Ans.

HOW TO ESTIMATE THE CONTENTS OF A ROUND STACK.

Rule.—Multiply the square of the distance around the stack in yards by 4 times the height in yards, and point off two places from the right, and this will be the number of cubic yards in the stack, which divided by 20 will equal the number of tons.

Example: How many tons of hay in a stack, distance around the bulge, 25 yards, and height, 9 yards?

Solution: $25 \times 25 = 625$, then $625 \times 36 = 22,500$, pointing off two places makes 225, then $225 \div 20 = 11\frac{1}{4}$ tons. Ans



How to Estimate the Contents of a Pile of Grain, Potatoes, etc.

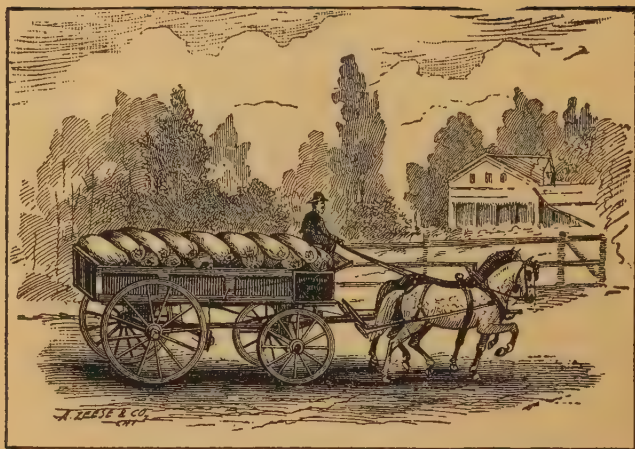
Rule.—Put the commodity in the form of a heap. Then multiply the diameter in feet by itself, and then again by the height in feet, and divide the result by 4, and you have the approximate contents in bushels.

Example:—How many bushels in a heap of grain 6 feet in diameter and 3 feet high?

Solution:— $6 \times 6 \times 3 \div 4 = 27$ bushels. Ans.

How Many Nails to the Pound.

	No. to the lb.	Length in inches.
3 penny fine.....	700	1¼
3 penny common.....	480	1¼
4 penny common.....	300	1½
6 penny common.....	160	2
8 penny common.....	92	2½
10 penny common.....	60	3
16 penny common.....	32	3½
20 penny common.....	24	4
40 penny common.....	14	5
60 penny common.....	8	6
8 penny fence.....	50	2½
10 penny fence.....	34	3



How to Figure Up a Load of Grain.

Rule.—Find the total number of pounds and divide that by the number of pounds in one bushel and it will equal the number of bushels.

Example: How many bushels in 2840 pounds of wheat, and what will it cost at 90 cents per bushel?

Solution: $2840 \div 60 = 47$ bushels and 20 pounds or $47\frac{1}{3}$ bushels.

$$47\frac{1}{3} \times 90 \text{ c.} = \$42.60 \quad \text{Ans.}$$

How to Use the Grain Table.

The heavy type column represents the weight of the load, and the number of bushels and pounds are at the right under the kind of grain. See example at the foot of next page.

How to Find the Number of Bushels in a Load of Grain at Sight.

W ^g t.	Oats 32 lbs.	Corn, Rye, 56 lbs.	Barley 48 lbs.	Wheat 60 lbs.	W ^g t.	Oats 32 lbs.	Corn, Rye, 56 lbs.	Barley 48 lbs.	Wheat 60 lbs.
	bus. lbs.	bus. lbs.	bus. lbs.	bus. lbs.		bus. lbs.	bus. lbs.	bus. lbs.	bus. lbs.
1500	46 28	26 44	31 12	25 00	2000	62 16	35 40	41 32	33 20
1510	47 06	26 54	31 22	25 10	2010	62 26	35 50	41 42	33 30
1520	47 16	27 08	31 32	25 20	2020	63 04	36 04	42 04	33 40
1530	47 26	27 18	31 42	25 30	2030	63 14	36 14	42 14	33 50
1540	48 04	27 28	32 04	25 40	2040	63 24	36 24	42 24	34 00
1550	48 14	27 38	32 14	25 50	2050	64 02	36 34	42 34	34 10
1560	48 24	27 48	32 24	26 00	2060	64 12	36 44	42 44	34 20
1570	49 02	28 02	32 34	26 10	2070	64 22	36 54	43 06	34 30
1580	49 12	28 12	32 44	26 20	2080	65 00	37 08	43 16	34 40
1590	49 22	28 22	33 06	26 30	2090	65 10	37 18	43 26	34 50
1600	50 00	28 32	33 16	26 40	2100	65 20	37 28	43 36	35 00
1610	50 10	28 42	33 26	26 50	2110	65 30	37 38	43 46	35 10
1620	50 20	28 52	33 36	27 00	2120	66 08	37 48	44 08	35 20
1630	50 30	29 06	33 46	27 10	2130	66 18	38 02	44 18	35 30
1640	51 08	29 16	34 08	27 20	2140	66 28	38 12	44 28	35 40
1650	51 18	29 26	34 18	27 30	2150	67 06	38 22	44 38	35 50
1660	51 28	29 36	34 28	27 40	2160	67 16	38 32	45 00	36 00
1670	52 06	29 46	34 38	27 50	2170	67 26	38 42	45 10	36 10
1680	52 16	30 00	35 00	28 00	2180	68 04	38 52	45 20	36 20
1690	52 26	30 10	35 10	28 10	2190	68 14	39 06	45 30	36 30
1700	53 04	30 20	35 20	28 20	2200	68 24	39 16	45 40	36 40
1710	53 14	30 30	35 30	28 30	2210	69 02	39 26	46 02	36 50
1720	53 24	30 40	35 40	28 40	2220	69 12	39 36	46 12	37 00
1730	54 02	30 50	36 02	28 50	2230	69 22	39 46	46 22	37 10
1740	54 12	31 04	36 12	29 00	2240	70 00	40 00	46 32	37 20
1750	54 22	31 14	36 22	29 10	2250	70 10	40 10	46 42	37 30
1760	55 00	31 24	36 32	29 20	2260	70 20	40 20	47 04	37 40
1770	55 10	31 34	36 42	29 30	2270	70 30	40 30	47 14	37 50
1780	55 20	31 44	37 04	29 40	2280	71 08	40 40	47 24	38 00
1790	55 30	31 54	37 14	29 50	2290	71 18	40 50	47 34	38 10
1800	56 08	32 08	37 24	30 00	2300	71 28	41 04	47 44	38 20
1810	56 18	32 18	37 34	30 10	2310	72 06	41 14	48 06	38 30
1820	56 28	32 28	37 44	30 20	2320	72 16	41 24	48 16	38 40
1830	57 06	32 38	38 06	30 30	2330	72 26	41 34	48 26	38 50
1840	57 16	32 48	38 16	30 40	2340	73 04	41 44	48 36	39 00
1850	57 26	33 02	38 26	30 50	2350	73 14	41 54	48 46	39 10
1860	58 04	33 12	38 36	31 00	2360	73 24	42 08	49 08	39 20
1870	58 14	33 22	38 46	31 10	2370	74 02	42 18	49 18	39 30
1880	58 24	33 32	39 08	31 20	2380	74 12	42 28	49 28	39 40
1890	59 02	33 42	39 18	31 30	2390	74 22	42 38	49 38	39 50
1900	59 12	33 52	39 28	31 40	2400	75 00	42 48	50 00	40 00
1910	59 22	34 06	39 38	31 50	2410	75 10	43 02	50 10	40 10
1920	60 00	34 16	40 00	32 00	2420	75 20	43 12	50 20	40 20
1930	60 10	34 26	40 10	32 10	2430	75 30	43 22	50 30	40 30
1940	60 20	34 36	40 20	32 20	2440	76 08	43 32	50 40	40 40
1950	60 30	34 46	40 30	32 30	2450	76 18	43 42	51 02	40 50
1960	61 08	35 00	40 40	32 40	2460	76 28	43 52	51 12	41 00
1970	61 18	35 10	41 02	32 50	2470	77 06	44 06	51 22	41 10
1980	61 28	35 20	41 12	33 00	2480	77 16	44 16	51 32	41 20
1990	62 06	35 30	41 22	33 10	2490	77 26	44 26	51 42	41 30
					2500	78 04	44 36	52 04	41 40

*Example:—*How many bushels of oats in 2,490 pounds?

*Answer:—*77 bushels and 26 pounds.

How to Find the Number of Bushels in a Load of Grain at Sight.

Weight	Oats. 32 lbs.		Corn, Rye, 56 lbs.		Barley 48 lbs.		Wheat 60 lbs.		W'g't.	Oats. 32 lbs.		Corn, Rye, 56 lbs.		Barley 48 lbs.		Wheat 60 lbs.	
	bus.	lbs.	bus.	lbs.	bus.	lbs.	bus.	lbs.		bus.	lbs.	bus.	lbs.	bus.	lbs.	bus.	lbs.
2510	78	14	44	46	52	14	41	50	3010	94	02	53	42	62	34	50	10
2520	78	24	45	00	52	24	42	00	3020	94	12	53	52	62	44	50	20
2530	79	02	45	10	52	34	42	10	3030	94	22	54	06	63	06	50	30
2540	79	12	45	20	52	44	42	20	3040	95	00	54	16	63	16	50	40
2550	79	22	45	30	53	06	42	30	3050	95	10	54	26	63	26	50	50
2560	80	00	45	40	53	16	42	40	3060	95	20	54	36	63	36	51	00
2570	80	10	45	50	53	26	42	50	3070	95	30	54	46	63	46	51	10
2580	80	20	46	04	53	36	43	00	3080	96	08	55	00	64	08	51	20
2590	80	30	46	14	53	46	43	10	3090	96	18	55	10	64	18	51	30
2600	81	08	46	24	54	08	43	20	3100	96	28	55	20	64	28	51	40
2610	81	18	46	34	54	18	43	30	3110	97	06	55	30	64	38	51	50
2620	81	28	46	44	54	28	43	40	3120	97	16	55	40	65	00	52	00
2630	82	06	46	54	54	38	43	50	3130	97	26	55	50	65	10	52	10
2640	82	16	47	08	55	00	44	00	3140	98	04	56	04	65	20	52	20
2650	82	26	47	18	55	10	44	10	3150	98	14	56	14	65	30	52	30
2660	83	04	47	28	55	20	44	20	3160	98	24	56	24	65	40	52	40
2670	83	14	47	38	55	30	44	30	3170	99	02	56	34	66	02	52	50
2680	83	24	47	48	55	40	44	40	3180	99	12	56	44	66	12	53	00
2690	84	02	48	02	56	02	44	50	3190	99	22	56	54	66	22	53	20
2700	84	12	48	12	56	12	45	00	3200	100	00	57	08	66	32	53	10
2710	84	22	48	22	56	22	45	10	3210	100	10	57	18	66	42	53	30
2720	85	00	48	32	56	32	45	20	3220	100	20	57	28	67	04	53	40
2730	85	10	48	42	56	42	45	30	3230	100	30	57	38	67	14	53	50
2740	85	20	48	52	57	04	45	40	3240	101	08	57	48	67	24	54	00
2750	85	30	49	06	57	14	45	50	3250	101	18	58	02	67	34	54	10
2760	86	08	49	16	57	24	46	00	3260	101	28	58	12	67	44	54	20
2770	86	18	49	26	57	34	46	10	3270	102	06	58	22	68	06	54	30
2780	86	28	49	36	57	44	46	20	3280	102	16	58	32	68	16	54	40
2790	87	06	49	46	58	06	46	30	3290	102	26	58	42	68	26	54	50
2800	87	16	50	00	58	16	46	40	3300	103	04	58	52	68	36	55	00
2810	87	26	50	10	58	26	46	50	3310	103	14	59	06	69	46	55	10
2820	88	04	50	20	58	36	47	00	3320	103	24	59	16	69	08	55	20
2830	88	14	50	30	58	46	47	10	3330	104	02	59	26	69	18	55	30
2840	88	24	50	40	59	08	47	20	3340	104	12	59	36	69	28	55	40
2850	89	02	50	50	59	18	47	30	3350	104	22	59	46	69	38	55	50
2860	89	12	51	04	59	28	47	40	3360	105	00	60	00	70	00	56	00
2870	89	22	51	14	59	38	47	50	3370	105	10	60	10	70	10	56	10
2880	90	00	51	24	60	00	48	00	3380	105	20	60	20	70	20	56	20
2890	90	10	51	34	60	10	48	10	3390	105	30	60	30	70	30	56	30
2900	90	20	51	44	60	20	48	20	3400	106	08	60	40	71	40	56	40
2910	90	30	51	54	60	30	48	30	3410	106	18	60	50	71	02	56	50
2920	91	08	52	08	60	40	48	40	3420	106	28	61	04	71	12	57	00
2930	91	18	52	18	61	02	48	50	3430	107	06	61	14	71	22	57	10
2940	91	28	52	28	61	12	49	00	3440	107	16	61	24	71	32	57	20
2950	92	06	52	38	61	22	49	10	3450	107	26	61	34	72	42	57	30
2960	92	16	52	48	61	32	49	20	3460	108	04	61	44	72	04	57	40
2970	92	26	53	02	61	42	49	30	3470	108	14	61	54	72	14	57	50
2990	93	04	53	12	62	04	49	40	3480	108	24	62	08	72	24	58	00
2990	93	14	53	22	62	14	49	50	3490	109	02	62	18	72	34	58	10
3000	93	24	53	32	62	24	50	00	3500	109	12	62	28	72	44	58	20



"THE LABORER IS WORTHY OF HIS HIRE."

HOW TO USE THE WAGE TABLE.

EXAMPLE :

Find the amount due for 7 months, 19 days, at \$19 a month.

For 7 months,	-	-	-	\$133.
For 19 days,	-	-	-	13.88
Total amount,	-	-	-	<u>\$146.88</u>

Find the amount due for 1 year, 8 months and 3 days, at \$20 per month.

For 1 year, @ \$20 per month,	-	-	\$240.
" 1 " @ 6 (½ of \$12) per month,			72.
" 8 months, @ \$20 per month,	-	-	160.
" 8 " @ 6 (½ of \$12) per month			48.
" 3 days, @ \$20 per month,	-	-	2.31
" 3 " @ 6 (½ of \$12) per month,			.69
Total amount,	-	-	<u>\$523.00</u>

To get the wages for \$2.00 take it for \$ 1.00 and multiply by 2.

" " " " " 4.00	" " 12.00	and divide by 3.
" " " " " 5.00	" " 10.00	" " " 2.
" " " " " 6.00	" " 12.00	" " " 2.
" " " " " 8.00	" " 16.00	" " " 2.
" " " " " 9.00	" " 18.00	" " " 2.

MONTHLY WAGES TABLE.*

HOW TO CALCULATE THE WAGES OF HIRED HELP AT SIGHT.

DATE	\$1	\$3	\$7	\$10	\$11	\$12	\$13	\$14	\$15	\$16	\$17	\$18	\$19	\$20
1	.04	.12	.27	.38	.42	.46	.50	.54	.58	.62	.65	.69	.73	.77
2	.08	.23	.54	.77	.85	.92	1.00	1.08	1.15	1.23	1.31	1.38	1.46	1.54
3	.12	.35	.81	1.15	1.27	1.38	1.50	1.62	1.73	1.85	1.96	2.08	2.19	2.31
4	.15	.46	1.08	1.54	1.69	1.85	2.00	2.15	2.31	2.46	2.62	2.77	2.92	3.08
5	.19	.58	1.35	1.92	2.12	2.31	2.50	2.69	2.88	3.08	3.27	3.46	3.65	3.85
6	.23	.69	1.62	2.31	2.54	2.77	3.00	3.23	3.46	3.69	3.92	4.15	4.38	4.62
7	.27	.81	1.88	2.69	2.96	3.23	3.50	3.77	4.04	4.31	4.58	4.85	5.12	5.38
8	.31	.92	2.15	3.08	3.38	3.69	4.00	4.31	4.62	4.92	5.23	5.54	5.85	6.15
9	.35	1.04	2.42	3.46	3.81	4.15	4.50	4.85	5.19	5.54	5.88	6.23	6.58	6.92
10	.38	1.15	2.69	3.85	4.23	4.62	5.00	5.38	5.77	6.15	6.54	6.92	7.31	7.69
11	.42	1.27	2.96	4.23	4.65	5.08	5.50	5.92	6.35	6.77	7.19	7.62	8.04	8.46
12	.46	1.38	3.23	4.62	5.08	5.44	6.00	6.46	6.92	7.38	7.85	8.31	8.77	9.23
13	.50	1.50	3.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00	9.50	10.00
14	.54	1.62	3.77	5.38	5.92	6.46	7.00	7.54	8.08	8.62	9.15	9.69	10.23	10.77
15	.58	1.73	4.04	5.77	6.35	6.92	7.50	8.08	8.65	9.23	9.81	10.38	10.96	11.54
16	.62	1.85	4.31	6.15	6.77	7.38	8.00	8.62	9.23	9.85	10.46	11.08	11.69	12.31
17	.65	1.96	4.58	6.54	7.19	7.85	8.50	9.15	9.81	10.46	11.12	11.77	12.42	13.08
18	.69	2.08	4.85	6.92	7.62	8.31	9.00	9.69	10.38	11.08	11.77	12.46	13.15	13.85
19	.73	2.19	5.12	7.31	8.04	8.77	9.50	10.23	10.96	11.69	12.42	13.15	13.88	14.62
20	.77	2.31	5.38	7.69	8.46	9.23	10.00	10.77	11.54	12.31	13.08	13.85	14.62	15.38
21	.81	2.42	5.65	8.08	8.88	9.69	10.50	11.31	12.12	12.92	13.73	14.54	15.35	16.15
22	.85	2.54	5.92	8.46	9.31	10.15	11.00	11.85	12.69	13.54	14.38	15.23	16.08	16.92
23	.88	2.65	6.19	8.85	9.73	10.62	11.50	12.38	13.27	14.15	15.04	15.92	16.81	17.69
24	.92	2.77	6.46	9.23	10.15	11.08	12.00	12.92	13.85	14.77	15.69	16.62	17.54	18.46
25	.96	2.88	6.73	9.62	10.58	11.54	12.50	13.46	14.42	15.38	16.35	17.31	18.27	19.23
1 mo	1.00	3.00	7.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00
2	2.00	6.00	14.00	20.00	22.00	24.00	26.00	28.00	30.00	32.00	34.00	36.00	38.00	40.00
3	3.00	9.00	21.00	30.00	33.00	36.00	39.00	42.00	45.00	48.00	51.00	54.00	57.00	60.00
4	4.00	12.00	28.00	40.00	44.00	48.00	52.00	56.00	60.00	64.00	68.00	72.00	70.00	80.00
5	5.00	15.00	35.00	50.00	55.00	60.00	65.00	70.00	75.00	80.00	85.00	90.00	95.00	100.00
6	6.00	18.00	42.00	60.00	66.00	72.00	78.00	84.00	90.00	96.00	102.00	108.00	114.00	120.00
7	7.00	21.00	49.00	70.00	77.00	84.00	91.00	98.00	105.00	112.00	119.00	126.00	133.00	140.00
8	8.00	24.00	56.00	80.00	88.00	96.00	104.00	112.00	120.00	128.00	136.00	144.00	152.00	160.00
9	9.00	27.00	63.00	90.00	99.00	108.00	117.00	126.00	135.00	144.00	153.00	162.00	171.00	180.00
10	10.00	30.00	70.00	100.00	110.00	120.00	130.00	140.40	150.00	160.00	170.00	180.00	190.00	200.00
11	11.00	33.00	77.00	110.00	121.00	132.00	143.00	154.00	165.00	176.00	187.00	198.00	209.00	220.00
1 yr	12.00	36.00	84.00	120.00	132.00	144.00	156.00	168.00	180.00	192.00	204.00	216.00	228.00	240.00

* 26 working days in a month.

MONTHLY WAGES TABLE—Continued.

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DATE.	\$21	\$22	\$23	\$24	\$25	\$26	\$27	\$28	\$29	\$30
1	.80	.85	.89	.92	.96	1.00	1.04	1.07	1.12	1.15
2	1.60	1.70	1.77	1.85	1.92	2.00	2.08	2.15	2.25	2.30
3	2.40	2.55	2.65	2.77	2.88	3.00	3.10	3.24	3.35	3.45
4	3.20	3.38	3.54	3.70	3.85	4.00	4.15	4.29	4.47	4.62
5	4.00	4.23	4.43	4.62	4.80	5.00	5.20	5.35	5.60	5.77
6	4.80	5.10	5.30	5.55	5.75	6.00	6.24	6.42	6.72	6.80
7	5.60	5.95	6.20	6.45	6.70	7.00	7.27	7.50	7.84	7.95
8	6.40	6.75	7.08	7.38	7.68	8.00	8.30	8.57	8.96	9.10
9	7.20	7.60	7.95	8.30	8.64	9.00	9.35	9.63	10.08	10.25
10	8.00	8.45	8.85	9.23	9.60	10.00	10.40	10.70	11.20	11.45
11	8.80	9.30	9.73	10.15	10.56	11.00	11.44	11.80	12.32	12.60
12	9.60	10.15	10.62	11.08	11.52	12.00	12.48	12.90	13.45	13.80
13	10.50	11.00	11.50	12.00	12.50	13.00	13.50	14.00	14.50	15.00
14	11.20	11.85	12.40	12.92	13.46	14.00	14.55	15.05	15.70	16.15
15	12.00	12.70	13.30	13.75	14.42	15.00	15.60	16.12	16.82	17.30
16	12.80	13.50	14.18	14.67	15.48	16.00	16.64	17.20	17.95	18.45
17	13.60	14.35	15.05	15.60	16.45	17.00	17.68	18.25	19.07	19.60
18	14.40	15.20	15.95	16.52	17.40	18.00	18.72	19.32	20.20	20.80
19	15.20	16.00	16.80	17.45	18.35	19.00	19.75	20.40	21.32	21.95
20	16.00	16.85	17.70	18.37	19.30	20.00	20.80	21.47	22.45	23.10
21	16.80	17.75	18.60	19.30	20.26	21.00	21.84	22.55	23.55	24.25
22	17.65	18.60	19.50	20.22	21.22	22.00	22.88	23.62	24.65	25.40
23	18.45	19.45	20.38	21.15	22.18	23.00	23.90	24.70	25.77	26.60
24	19.25	20.30	21.25	22.07	23.15	24.00	24.96	25.80	26.90	27.75
25	20.10	21.15	22.10	23.10	24.10	25.00	25.98	26.95	27.95	28.85
1 mo.	21.00	22.00	23.00	24.00	25.00	26.00	27.00	28.00	29.00	30.00
2	42.00	44.00	46.00	48.00	50.00	52.00	54.00	56.00	58.00	60.00
3	63.00	66.00	69.00	72.00	75.00	78.00	81.00	84.00	87.00	90.00
4	84.00	88.00	92.00	96.00	100.00	104.00	108.00	112.00	116.00	120.00
5	105.00	110.00	115.00	120.00	125.00	130.00	135.00	140.00	145.00	150.00
6	126.00	132.00	138.00	144.00	150.00	156.00	162.00	168.00	174.00	180.00
7	147.00	154.00	161.00	168.00	175.00	182.00	189.00	196.00	203.00	210.00
8	168.00	176.00	184.00	192.00	200.00	208.00	216.00	224.00	232.00	240.00
9	189.00	198.00	207.00	216.00	225.00	234.00	243.00	252.00	261.00	270.00
10	210.00	220.00	230.00	240.00	250.00	260.00	270.00	280.00	290.00	300.00
11	231.00	242.00	253.00	264.00	275.00	286.00	297.00	308.00	319.00	330.00
1 yr.	252.00	264.00	276.00	288.00	300.00	312.00	324.00	336.00	348.00	360.00

MONTHLY WAGES TABLE—Continued.

DATE.	\$31	\$32	\$33	\$34	\$35	\$36	\$37	\$38	\$39	\$40
1	1.20	1.23	1.27	1.30	1.35	1.38	1.42	1.46	1.50	1.50
2	2.40	2.46	2.54	2.60	2.70	2.77	2.80	2.90	3.00	3.08
3	3.57	3.70	3.81	3.90	4.05	4.15	4.25	4.36	4.50	4.62
4	4.76	4.93	5.07	5.20	5.40	5.53	5.70	5.82	6.00	6.16
5	6.00	6.16	6.35	6.50	6.70	6.90	7.12	7.28	7.50	7.70
6	7.19	7.40	7.60	7.80	8.05	8.28	8.55	8.75	9.00	9.24
7	8.38	8.63	8.87	9.10	9.40	9.65	9.97	10.20	10.50	10.75
8	9.58	9.85	10.14	10.40	10.75	11.05	11.40	11.65	12.00	12.32
9	10.77	11.08	11.40	11.70	12.05	12.50	12.83	13.10	13.50	13.85
10	11.96	12.30	12.67	13.00	13.40	13.88	14.25	14.55	15.00	15.35
11	13.15	13.50	13.93	14.30	14.75	15.26	15.65	16.00	16.50	16.90
12	14.35	14.75	15.20	15.65	16.15	16.65	17.10	17.55	18.00	18.45
13	15.50	16.00	16.50	17.00	17.50	18.00	18.50	19.00	19.50	20.00
14	16.70	17.23	17.76	18.30	18.85	19.40	19.92	20.46	21.00	21.54
15	17.90	18.47	19.00	19.60	20.20	20.78	21.35	21.92	22.50	23.05
16	19.10	19.70	20.27	20.90	21.55	22.15	22.77	23.38	24.00	24.60
17	20.30	20.93	21.54	22.20	22.90	23.53	24.20	24.85	25.50	26.13
18	21.50	22.15	22.80	23.50	24.25	24.90	25.60	26.30	27.00	27.65
19	22.70	23.38	24.05	24.80	25.60	26.30	27.02	27.75	28.50	29.20
20	23.90	24.60	25.32	26.15	26.95	27.70	28.65	29.20	30.00	30.75
21	25.10	25.83	26.60	27.40	28.30	29.08	30.10	30.75	31.50	32.25
22	26.30	27.05	27.87	28.70	29.65	30.45	31.55	32.21	33.00	33.80
23	27.50	28.28	29.14	30.00	31.00	31.83	32.97	33.67	34.50	35.35
24	28.70	29.50	30.41	31.35	32.35	33.20	34.40	35.13	36.00	36.90
25	29.90	30.75	31.70	32.65	33.70	34.60	35.55	36.36	37.50	38.45
1 mo.	31.00	32.00	33.00	34.00	35.00	36.00	37.00	38.00	39.00	40.00
2	62.00	64.00	66.00	68.00	70.00	72.00	74.00	76.00	78.00	80.00
3	93.00	96.00	99.00	102.00	105.00	108.00	111.00	114.00	117.00	120.00
4	124.00	128.00	132.00	136.00	140.00	144.00	148.00	152.00	156.00	160.00
5	155.00	160.00	165.00	170.00	175.00	180.00	185.00	190.00	195.00	200.00
6	186.00	192.00	198.00	204.00	210.00	216.00	222.00	228.00	234.00	240.00
7	217.00	224.00	231.00	238.00	245.00	252.00	259.00	266.00	273.00	280.00
8	248.00	256.00	264.00	272.00	280.00	288.00	296.00	304.00	312.00	320.00
9	279.00	288.00	297.00	306.00	315.00	324.00	333.00	342.00	351.00	360.00
10	310.00	320.00	330.00	340.00	350.00	360.00	370.00	380.00	390.00	400.00
11	341.00	352.00	363.00	374.00	385.00	396.00	407.00	418.00	429.00	440.00
1 yr.	372.00	384.00	396.00	408.00	420.00	432.00	444.00	456.00	468.00	480.00

TABLE OF WAGES BY THE WEEK, GIVING THE DAY AND HOUR.

	\$1	\$2	\$3	\$4	\$5	\$6	\$7	\$8	\$9	\$10	\$11	\$12	\$13	\$14	\$15	\$16	\$17	\$18
$\frac{1}{2}$ hr.		$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$	5	5	$\frac{6}{8}$	$\frac{7}{8}$	$\frac{8}{8}$	$\frac{9}{8}$	10	10	$\frac{11}{8}$	$\frac{12}{8}$	$\frac{13}{8}$	$\frac{14}{8}$	15
1 hr.	$\frac{1}{2}$	$\frac{3}{4}$	5	$\frac{6}{8}$	$\frac{8}{8}$	10	$\frac{11}{8}$	$\frac{13}{8}$	15	$\frac{16}{8}$	$\frac{18}{8}$	20	$\frac{21}{8}$	$\frac{23}{8}$	25	$\frac{26}{8}$	$\frac{28}{8}$	30
2 hrs.	$\frac{3}{4}$	$\frac{6}{8}$	10	$\frac{13}{8}$	$\frac{16}{8}$	20	$\frac{23}{8}$	$\frac{26}{8}$	30	$\frac{33}{8}$	$\frac{36}{8}$	40	$\frac{43}{8}$	$\frac{46}{8}$	50	$\frac{53}{8}$	$\frac{56}{8}$	60
3 hrs.	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
4 hrs.	$\frac{6}{8}$	$\frac{13}{8}$	20	$\frac{26}{8}$	$\frac{33}{8}$	40	$\frac{46}{8}$	$\frac{53}{8}$	60	$\frac{66}{8}$	$\frac{73}{8}$	80	$\frac{86}{8}$	$\frac{93}{8}$	1.00	$\frac{1.06}{8}$	$\frac{1.13}{8}$	1.20
5 hrs.	$\frac{8}{8}$	$\frac{10}{8}$	25	$\frac{33}{8}$	$\frac{41}{8}$	50	$\frac{58}{8}$	$\frac{66}{8}$	75	$\frac{83}{8}$	$\frac{91}{8}$	1.00	$\frac{1.08}{8}$	$\frac{1.16}{8}$	1.25	$\frac{1.33}{8}$	$\frac{1.41}{8}$	1.50
6 hrs.	10	20	30	40	50	60	70	80	90	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80
7 hrs.	$\frac{11}{8}$	$\frac{23}{8}$	35	$\frac{46}{8}$	$\frac{58}{8}$	70	$\frac{81}{8}$	$\frac{93}{8}$	1.05	$\frac{1.16}{8}$	$\frac{1.28}{8}$	1.40	$\frac{1.51}{8}$	$\frac{1.63}{8}$	1.75	$\frac{1.86}{8}$	$\frac{1.98}{8}$	2.10
8 hrs.	$\frac{13}{8}$	$\frac{26}{8}$	40	$\frac{53}{8}$	$\frac{66}{8}$	80	$\frac{93}{8}$	$\frac{1.06}{8}$	1.20	$\frac{1.33}{8}$	$\frac{1.46}{8}$	1.60	$\frac{1.73}{8}$	$\frac{1.86}{8}$	2.00	$\frac{2.13}{8}$	$\frac{2.26}{8}$	2.40
9 hrs.	15	30	45	60	75	90	1.05	1.20	1.35	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70
1 day	$\frac{16}{8}$	$\frac{33}{8}$	50	$\frac{66}{8}$	$\frac{83}{8}$	1.00	$\frac{1.16}{8}$	$\frac{1.33}{8}$	1.50	$\frac{1.66}{8}$	$\frac{1.83}{8}$	2.00	$\frac{2.16}{8}$	$\frac{2.33}{8}$	2.50	$\frac{2.66}{8}$	$\frac{2.83}{8}$	3.00
2 ds.	$\frac{33}{8}$	$\frac{66}{8}$	1.00	$\frac{1.33}{8}$	$\frac{1.66}{8}$	2.00	$\frac{2.33}{8}$	$\frac{2.66}{8}$	3.00	$\frac{3.33}{8}$	$\frac{3.66}{8}$	4.00	$\frac{4.33}{8}$	$\frac{4.66}{8}$	5.00	$\frac{5.33}{8}$	$\frac{5.66}{8}$	6.00
3 ds.	50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50	9.00
4 ds.	$\frac{66}{8}$	$\frac{1.33}{8}$	2.00	$\frac{2.66}{8}$	$\frac{3.33}{8}$	4.00	$\frac{4.66}{8}$	$\frac{5.33}{8}$	6.00	$\frac{6.66}{8}$	$\frac{7.33}{8}$	8.00	$\frac{8.66}{8}$	$\frac{9.33}{8}$	10.00	$\frac{10.66}{8}$	$\frac{11.33}{8}$	12.00
5 ds.	$\frac{83}{8}$	$\frac{1.66}{8}$	2.50	$\frac{3.33}{8}$	$\frac{4.16}{8}$	5.00	$\frac{5.83}{8}$	$\frac{6.66}{8}$	7.50	$\frac{8.33}{8}$	$\frac{9.16}{8}$	10.00	$\frac{10.83}{8}$	$\frac{11.66}{8}$	12.50	$\frac{13.33}{8}$	$\frac{14.16}{8}$	15.00
6 ds.	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00

The above table is based on 10 hours a day.

EXAMPLE: What will 4 days and 7 hours come to at \$9.00 per week? Ans.: \$7.05.

248 ICE, BRAN, MILL-FEED, STONE, HAY, IRON, COAL
and Cotton Picker's Table.

Pounds.	50c	55c	60c	65c	70c	75c	80c	85c	90c	95c	1.00	1.05	1.10	1.15	1.20	1.25
5	.03	.03	.03	.04	.04	.04	.04	.05	.05	.05	.05	.05	.06	.06	.06	.06
10	.05	.06	.06	.07	.07	.08	.08	.09	.09	.10	.10	.11	.11	.12	.12	.13
15	.08	.08	.09	.10	.11	.11	.12	.13	.14	.14	.15	.16	.17	.17	.18	.19
20	.10	.11	.12	.13	.14	.15	.16	.17	.18	.19	.20	.21	.22	.23	.24	.25
25	.13	.14	.15	.16	.18	.19	.20	.21	.23	.24	.25	.26	.28	.29	.30	.31
30	.15	.17	.18	.20	.21	.23	.24	.26	.27	.29	.30	.32	.33	.35	.36	.38
35	.18	.19	.21	.23	.25	.26	.28	.30	.32	.33	.35	.38	.39	.40	.42	.44
40	.20	.22	.24	.26	.28	.30	.32	.34	.36	.38	.40	.42	.44	.46	.48	.50
45	.23	.25	.27	.29	.32	.34	.36	.38	.41	.43	.45	.47	.50	.52	.54	.56
50	.25	.28	.30	.33	.35	.38	.40	.43	.45	.48	.50	.53	.55	.58	.60	.63
55	.28	.30	.33	.36	.39	.41	.44	.47	.50	.52	.55	.58	.61	.63	.66	.69
60	.30	.33	.36	.39	.42	.45	.48	.51	.54	.57	.60	.63	.66	.69	.72	.75
65	.33	.36	.39	.42	.46	.49	.52	.55	.59	.62	.65	.69	.72	.75	.78	.81
70	.35	.39	.42	.46	.49	.53	.56	.60	.63	.67	.70	.74	.77	.81	.84	.88
75	.38	.41	.45	.49	.53	.56	.60	.64	.68	.71	.75	.79	.83	.86	.90	.94
80	.40	.44	.48	.52	.56	.60	.64	.68	.72	.76	.80	.84	.88	.92	.96	1.00
85	.43	.47	.51	.55	.60	.64	.68	.72	.77	.81	.85	.89	.94	.98	1.02	1.06
90	.45	.50	.54	.59	.63	.68	.72	.77	.81	.86	.90	.95	.99	1.04	1.08	1.13
95	.48	.52	.57	.62	.67	.71	.76	.81	.86	.90	.95	1.00	1.05	1.09	1.14	1.19
100	.50	.55	.60	.65	.70	.75	.80	.85	.90	.95	1.00	1.05	1.10	1.15	1.20	1.25
105	.53	.58	.63	.68	.74	.79	.84	.89	.95	1.00	1.05	1.10	1.16	1.21	1.26	1.31
110	.55	.61	.66	.72	.77	.83	.88	.94	.99	1.05	1.10	1.16	1.21	1.27	1.32	1.38
115	.58	.63	.69	.75	.81	.86	.92	.98	1.04	1.09	1.15	1.21	1.27	1.32	1.38	1.44
120	.60	.66	.72	.78	.84	.90	.96	1.02	1.08	1.14	1.20	1.26	1.32	1.38	1.44	1.50
125	.63	.69	.75	.81	.88	.94	1.00	1.06	1.13	1.19	1.25	1.31	1.38	1.44	1.50	1.56
130	.65	.72	.78	.85	.91	.98	1.04	1.11	1.17	1.24	1.30	1.37	1.43	1.50	1.56	1.63
135	.68	.74	.81	.88	.95	1.01	1.08	1.15	1.22	1.28	1.35	1.42	1.49	1.55	1.62	1.69
140	.70	.77	.84	.91	.98	1.05	1.12	1.19	1.26	1.33	1.40	1.47	1.54	1.61	1.68	1.75
145	.73	.80	.87	.94	1.02	1.09	1.16	1.23	1.31	1.38	1.45	1.52	1.60	1.67	1.74	1.81
150	.75	.83	.90	.98	1.05	1.13	1.20	1.28	1.35	1.43	1.50	1.58	1.65	1.73	1.80	1.88
155	.78	.85	.93	1.01	1.09	1.16	1.24	1.32	1.40	1.48	1.55	1.63	1.71	1.78	1.86	1.94
160	.80	.88	.96	1.04	1.12	1.20	1.28	1.36	1.44	1.52	1.60	1.68	1.76	1.84	1.92	2.00
165	.83	.91	.99	1.07	1.16	1.24	1.32	1.40	1.49	1.57	1.65	1.73	1.82	1.90	1.98	2.06
170	.85	.94	1.02	1.10	1.19	1.28	1.36	1.45	1.53	1.62	1.70	1.79	1.87	1.96	2.04	2.13
175	.88	.96	1.05	1.14	1.23	1.31	1.40	1.49	1.58	1.66	1.75	1.84	1.93	2.01	2.10	2.19
180	.90	.99	1.08	1.17	1.26	1.35	1.44	1.53	1.62	1.71	1.80	1.89	1.98	2.07	2.16	2.25
185	.93	1.02	1.11	1.20	1.30	1.39	1.48	1.57	1.67	1.76	1.85	1.94	2.04	2.13	2.22	2.31
190	.95	1.05	1.14	1.24	1.33	1.43	1.52	1.62	1.71	1.81	1.90	2.00	2.09	2.19	2.28	2.38
195	.98	1.07	1.17	1.27	1.37	1.46	1.56	1.66	1.76	1.85	1.95	2.05	2.15	2.24	2.34	2.44
200	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20	2.30	2.40	2.50
300	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55	2.70	2.85	3.00	3.15	3.30	3.45	3.60	3.75
400	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40	3.60	3.80	4.00	4.20	4.40	4.60	4.80	5.00

Example:—165 pounds at 1.05=1.73.

READY RECKONER.

Nos	1/4 c.	1/2 c.	3/4 c.	1 1/4 c.	1 1/2 c.	1 3/4 c.	2 c.	2 1/4 c.	2 1/2 c.	3 c.	3 1/4 c.	3 1/2 c.	3 3/4 c.	4 c.	4 1/4 c.	4 1/2 c.
2	1/2	.01	.01 1/2	.02 1/2	.03	.03 1/2	.04	.04 1/2	.05	.05 1/2	.06	.06 1/2	.07	.08	.08 1/2	.09
3	3/4	.01 1/2	.02	.03	.04	.04 1/2	.05	.05 1/2	.06	.06 1/2	.07	.07 1/2	.08	.08 1/2	.09	.10
4	.01	.02	.03	.04	.05	.05 1/2	.06	.06 1/2	.07	.07 1/2	.08	.08 1/2	.09	.10	.11	.12
5	.01 1/4	.02 1/2	.03 1/2	.04 1/2	.05 1/2	.06	.06 1/2	.07	.07 1/2	.08	.08 1/2	.09	.10	.11	.12	.13
6	.01 1/2	.03	.04 1/2	.05 1/2	.06	.06 1/2	.07	.07 1/2	.08	.08 1/2	.09	.10	.11	.12	.13	.14
7	.01 3/4	.03 1/2	.05 1/2	.06 1/2	.07	.07 1/2	.08	.08 1/2	.09	.10	.11	.12	.13	.14	.15	.16
8	.02	.04	.06	.08	.10	.11 1/2	.13	.15	.17 1/2	.19 1/2	.21	.23	.25	.27	.29	.31
9	.02 1/2	.04 1/2	.06 1/2	.08 1/2	.10 1/2	.12 1/2	.14	.16	.18	.20	.22	.24	.26	.28	.30	.32
10	.03	.05	.07 1/2	.10	.12 1/2	.15	.18	.21	.24	.27 1/2	.30	.33 1/2	.36	.39	.42 1/2	.45
20	.05	.10	.15	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70	.75	.80	.85
30	.07 1/2	.15	.22 1/2	.37 1/2	.45	.52 1/2	.60	.67 1/2	.75	.82 1/2	.90	.97 1/2	1.05	1.12 1/2	1.20	1.27 1/2
40	.10	.20	.30	.50	.60	.70	.80	.90	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70
50	.12 1/2	.25	.37 1/2	.62 1/2	.75	.87 1/2	1.00	1.12 1/2	1.25	1.37 1/2	1.50	1.62 1/2	1.75	1.87 1/2	2.00	2.12 1/2
60	.15	.30	.45	.75	.90	1.05	1.20	1.35	1.50	1.65	1.80	1.95	2.10	2.25	2.40	2.55
70	.17 1/2	.35	.52 1/2	.87 1/2	1.05	1.22 1/2	1.40	1.57 1/2	1.75	1.92 1/2	2.10	2.27 1/2	2.45	2.62 1/2	2.80	2.97 1/2
80	.20	.40	.60	1.00	1.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60	2.80	3.00	3.20	3.40
90	.22 1/2	.45	.67 1/2	1.12 1/2	1.35	1.57 1/2	1.80	2.02 1/2	2.25	2.47 1/2	2.70	2.92 1/2	3.15	3.37 1/2	3.60	3.82 1/2
100	.25	.50	.75	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25
200	.50	1.00	1.50	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00	6.50	7.00	7.50	8.00	8.50
300	.75	1.50	2.25	3.75	4.50	5.25	6.00	6.75	7.50	8.25	9.00	9.75	10.50	11.25	12.00	12.75
400	1.00	2.00	3.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00
500	1.25	2.50	3.75	6.25	7.50	8.75	10.00	11.25	12.50	13.75	15.00	16.25	17.50	18.75	20.00	21.25
600	1.50	3.00	4.50	7.50	9.00	10.50	12.00	13.50	15.00	16.50	18.00	19.50	21.00	22.50	24.00	25.50
700	1.75	3.50	5.25	8.75	10.50	12.25	14.00	15.75	17.50	19.25	21.00	22.75	24.50	26.25	28.00	29.75
800	2.00	4.00	6.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00	26.00	28.00	30.00	32.00	34.00
900	2.25	4.50	6.75	11.25	13.50	15.75	18.00	20.25	22.50	24.75	27.00	29.25	31.50	33.75	36.00	38.25
1000	2.50	5.00	7.50	12.50	15.00	17.50	20.00	22.50	25.00	27.50	30.00	32.50	35.00	37.50	40.00	42.50

EXPLANATION.—To find the cost of 7 articles or pounds at 5 1/2 cents each, follow down from the number 5 1/2 until opposite the 7 in the first column and the amount is found to be 40 1/2 cents. To get the cost of 67 articles or pounds add the cost of 7 to the cost of 60 and the sum will be the cost of 67. Thus the cost of any amount can be quickly learned by addition. This table includes all the fractional and aliquot part ordinarily used in business.

READY RECKONER.

Nos	4½c.	5c.	5½c.	5½c.	5½c.	5c.	6c.	6¼c.	6½c.	6½c.	6¾c.	7c.	7¼c.	7½c.	7¾c.	8c.	8¼c.	8½c.
2	.09½	10	.10½	.16½	.11	.11½	.12	.12½	.13	.13½	.13½	.14	.14½	.15	.15½	.16	.16½	.16½
3	.14¼	.15	.15½	.22	.16½	.17½	.18	.18½	.19½	.20	.20½	.21	.21½	.22½	.23½	.24	.24½	.25
4	.19	.20	.21	.27½	.22	.23	.24	.25	.26	.26½	.27	.28	.29	.30	.31	.32	.33	.33½
5	.23¾	.25	.26½	.33	.27½	.28¾	.30	.31¼	.32½	.33½	.33¾	.35	.36½	.37½	.38¾	.40	.41¼	.41¾
6	.28½	.30	.31½	.38½	.33	.34½	.36	.37½	.39	.40	.40½	.42	.43½	.45	.46½	.48	.49½	.50
7	.33¼	.35	.36¾	.44	.38½	.40¼	.42	.43¾	.45½	.46½	.47¼	.49	.50½	.52½	.54¼	.56	.57¾	.58¾
8	.38	.40	.42	.49½	.44	.46	.48	.50	.52	.53½	.54	.56	.58	.60	.62	.64	.66	.68¾
9	.42¾	.45	.47¼	.55	.49½	.51¾	.54	.56½	.58½	.60	.60¾	.63	.65¼	.67½	.69¾	.72	.74¼	.75
10	.47½	.50	.52½	.60	.55	.57½	.60	.62½	.65	.66½	.67½	.70	.72½	.75	.77½	.80	.82½	.83½
20	.95	1.00	1.05	1.10	1.15	1.15	1.20	1.25	1.30	1.33½	1.35	1.40	1.45	1.50	1.55	1.60	1.65	1.66½
30	1.42½	1.50	1.57½	1.65	1.72½	1.72½	1.80	1.87½	1.95	2.00	2.02½	2.10	2.17½	2.25	2.32½	2.40	2.47½	2.50
40	1.90	2.00	2.10	2.20	2.30	2.30	2.40	2.50	2.60	2.65½	2.70	2.80	2.90	3.00	3.10	3.20	3.30	3.33½
50	2.37½	2.50	2.62½	2.75	2.87½	2.87½	3.00	3.12½	3.25	3.33½	3.37½	3.50	3.62½	3.75	3.87½	4.00	4.12½	4.16½
60	2.85	3.00	3.15	3.30	3.45	3.45	3.60	3.75	3.90	4.00	4.05	4.20	4.35	4.50	4.65	4.80	4.95	5.00
70	3.32½	3.50	3.67½	3.85	4.02½	4.02½	4.20	4.37½	4.55	4.66½	4.72½	4.90	5.07½	5.25	5.42½	5.60	5.77½	5.83½
80	3.80	4.00	4.20	4.40	4.60	4.60	4.80	5.00	5.20	5.38½	5.40	5.60	5.80	6.00	6.20	6.40	6.60	6.68½
90	4.27½	4.50	4.72½	4.95	5.17½	5.17½	5.40	5.62½	5.85	6.00	6.07½	6.30	6.52½	6.75	6.97½	7.20	7.42½	7.50
100	4.75	5.00	5.25	5.50	5.75	5.75	6.00	6.25	6.50	6.68½	6.75	7.00	7.25	7.50	7.75	8.00	8.25	8.33½
200	9.50	10.00	10.50	11.00	11.50	11.50	12.00	12.50	13.00	13.33½	13.50	14.00	14.50	15.00	15.50	16.00	16.50	16.68½
300	14.25	15.00	15.75	16.50	17.25	17.25	18.00	18.75	19.50	20.00	20.25	21.00	21.75	22.50	23.25	24.00	24.75	25.00
400	19.00	20.00	21.00	22.00	23.00	23.00	24.00	25.00	26.00	26.68½	27.00	28.00	29.00	30.00	31.00	32.00	33.00	33.33½
500	23.75	25.00	26.25	27.50	28.75	28.75	30.00	31.25	32.50	33.33½	33.75	35.00	36.25	37.50	38.75	40.00	41.25	41.66½
600	28.50	30.00	31.50	33.00	34.50	34.50	36.00	37.50	39.00	40.00	40.50	42.00	43.50	45.00	46.50	48.00	49.50	50.00
700	33.25	35.00	36.75	38.50	40.25	40.25	42.00	43.75	45.50	46.68½	47.25	49.00	50.75	52.50	54.25	56.00	57.75	58.33½
800	38.00	40.00	42.00	44.00	46.00	46.00	48.00	50.00	52.00	53.33½	54.00	56.00	58.00	60.00	62.00	64.00	66.00	66.68½
900	42.75	45.00	47.25	49.50	51.75	51.75	54.00	56.25	58.50	60.00	60.75	63.00	65.25	67.50	69.75	72.00	74.25	75.00
1000	47.50	50.00	52.50	55.00	57.50	57.50	60.00	62.50	65.00	66.68½	67.50	70.00	72.50	75.00	77.50	80.00	82.50	83.33½

READY RECKONER.

Nos	8½c.	8c.	9¼c.	9c.	9½c.	10c.	10¼c.	10½c.	10¾c.	11c.	11¼c.	11½c.	11¾c.	12c.	12½c.
2	17	18	18½	19	19½	20	20½	21	21½	22	22½	23	23½	24	24½
3	25½	27	27¾	28½	29¼	30	30¾	31½	32¼	33	33¾	34½	35¼	36	36¾
4	34	36	37	38	39	40	41	42	43	44	45	46	47	48	49
5	42½	44½	46¼	47½	48¾	50	51¼	52½	53¾	55	56¼	57½	58¾	60	61¼
6	51	54	55½	57	58½	60	61½	63	64¼	66	67½	69	70¾	72	73½
7	59½	63	64¾	66½	68¾	70	71¾	73½	75¼	77	78¾	80½	82¾	84	85¾
8	68	72	74	76	78	80	82	84	86	88	90	92	94	96	98
9	76½	81	83¼	85½	87¾	90	92¼	94½	96¾	99	101¼	103½	105¾	108	110¼
10	85	90	92½	95	97½	100	102½	105	107½	110	112½	115	117½	120	122½
20	170	180	185	190	195	200	205	210	215	220	225	230	235	240	245
30	255	270	277½	285	292½	300	307½	315	322½	330	337½	345	352½	360	367½
40	340	360	370	380	390	400	410	420	430	440	450	460	470	480	490
50	425	450	462½	475	487½	500	512½	525	537½	550	562½	575	587½	600	612½
60	510	525	540	555	570	585	600	615	630	645	660	675	690	705	720
70	595	630	647½	665	682½	700	717½	735	752½	770	787½	805	822½	840	857½
80	680	720	740	760	780	800	820	840	860	880	900	920	940	960	980
90	765	810	832½	855	877½	900	922½	945	967½	990	1012½	1035	1057½	1080	1102½
100	850	900	925	950	975	1000	1025	1050	1075	1100	1125	1150	1175	1200	1225
200	1700	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450
300	2550	2700	2775	2850	2925	3000	3075	3150	3225	3300	3375	3450	3525	3600	3675
400	3400	3600	3700	3800	3900	4000	4100	4200	4300	4400	4500	4600	4700	4800	4900
500	4250	4500	4625	4750	4875	5000	5125	5250	5375	5500	5625	5750	5875	6000	6125
600	5100	5250	5400	5550	5700	5850	6000	6150	6300	6450	6600	6750	6900	7050	7200
700	5950	6300	6475	6650	6825	7000	7175	7350	7525	7700	7875	8050	8225	8400	8575
800	6800	7200	7400	7600	7800	8000	8200	8400	8600	8800	9000	9200	9400	9600	9800
900	7650	8100	8325	8550	8775	9000	9225	9450	9675	9900	10125	10350	10575	10800	11025
1000	8500	9000	9250	9500	9750	10000	10250	10500	10750	11000	11250	11500	11750	12000	12250

READY RECKONER.

Nos	12½c.	12¾c.	13c.	14c.	15c.	16c.	16¾c.	17c.	18c.	19c.	20c.	23¾c.	27½c.	62½c.	66¾c.	87½c.
2	.25	.25½	.26	.28	.30	.32	.33½	.34	.36	.38	.40	.66%	.75	1.25	1.33½	1.75
3	.37½	.38¾	.39	.42	.45	.48	.50	.51	.54	.57	.60	1.00	1.12½	1.87½	2.00	2.62½
4	.50	.51	.52	.56	.60	.64	.66%	.68	.72	.76	.80	1.33½	1.50	2.50	2.66%	3.50
5	.62½	.63¾	.65	.70	.75	.80	.83½	.85	.90	.95	1.00	1.66%	1.87½	3.12½	3.33½	4.37½
6	.75	.76½	.78	.84	.90	.96	1.00	1.02	1.08	1.14	1.20	2.00	2.25	3.75	4.00	5.25
7	.87½	.89¾	.91	.98	1.05	1.12	1.16%	1.19	1.26	1.33	1.40	2.33½	2.62½	4.37½	4.66%	6.12½
8	1.00	1.02	1.04	1.12	1.20	1.28	1.33%	1.36	1.44	1.52	1.60	2.66%	3.00	5.00	5.33½	7.00
9	1.12½	1.14¾	1.17	1.26	1.35	1.44	1.50	1.53	1.62	1.71	1.80	3.00	3.37½	5.62½	6.00	7.87½
10	1.25	1.27½	1.30	1.40	1.50	1.60	1.66%	1.70	1.80	1.90	2.00	3.33½	3.75	6.25	6.66%	8.75
20	2.50	2.55	2.60	2.80	3.00	3.20	3.33%	3.40	3.60	3.80	4.00	6.66%	7.50	12.50	13.33½	17.50
30	3.75	3.82½	3.90	4.20	4.50	4.80	5.00	5.10	5.40	5.70	6.00	10.00	11.25	18.75	20.00	26.25
40	5.00	5.10	5.20	5.60	6.00	6.40	6.66%	6.80	7.20	7.60	8.00	13.33½	15.00	25.00	26.66%	35.00
50	6.25	6.37½	6.50	7.00	7.50	8.00	8.33%	8.50	9.00	9.50	10.00	16.66%	18.75	31.25	33.33½	43.75
60	7.50	7.65	7.86	8.40	9.00	9.60	10.00	10.20	10.80	11.40	12.00	20.00	22.50	37.50	40.00	52.50
70	8.75	8.92½	9.10	9.80	10.50	11.20	11.66%	11.90	12.60	13.30	14.00	23.33½	26.25	43.75	46.66%	61.25
80	10.00	10.20	10.40	11.20	12.00	12.80	13.33%	13.60	14.40	15.20	16.00	26.66%	30.00	50.00	53.33½	70.00
90	11.25	11.47½	11.70	12.60	13.50	14.40	15.00	15.30	16.20	17.10	18.00	30.00	33.75	56.25	60.00	78.75
100	12.50	12.75	13.00	14.00	15.00	16.00	16.66%	17.00	18.00	19.00	20.00	33.33½	37.50	62.50	66.66%	87.50
200	25.00	25.50	26.00	28.00	30.00	32.00	33.33½	34.00	36.00	38.00	40.00	66.66%	75.00	125.00	133.33½	175.00
300	37.50	38.25	39.00	42.00	45.00	48.00	50.00	51.00	54.00	57.00	60.00	100.00	112.50	187.50	200.00	262.50
400	50.00	51.00	52.00	56.00	60.00	64.00	66.66%	68.00	72.00	76.00	80.00	133.33½	150.00	250.00	266.66%	350.00
500	62.50	63.75	65.00	70.00	75.00	80.00	83.33½	85.00	90.00	95.00	100.00	166.66%	187.50	312.50	333.33½	437.50
600	75.00	76.50	78.00	84.00	90.00	96.00	100.00	102.00	108.00	114.00	120.00	200.00	225.00	375.00	400.00	525.00
700	87.50	89.25	91.00	98.00	105.00	112.00	116.66%	119.00	126.00	133.00	140.00	233.33½	262.50	437.50	466.66%	612.50
800	100.00	102.00	104.00	112.00	120.00	128.00	133.33½	136.00	144.00	152.00	160.00	266.66%	300.00	500.00	533.33½	700.00
900	112.50	114.75	117.00	126.00	135.00	144.00	150.00	153.00	162.00	171.00	180.00	300.00	337.50	562.50	600.00	787.50
1000	125.00	127.50	130.00	140.00	150.00	160.00	166.66%	170.00	180.00	190.00	200.00	333.33½	375.00	625.00	666.66%	875.00

BUSINESS ABBREVIATIONS.

<i>Acct</i>	Account.	<i>Inv't</i>	Inventory.
<i>Advtg</i>	Advertising.	<i>J. or Jour</i>	Journal.
<i>Agmt</i>	Agreement.	<i>J. P.</i>	Journal page.
<i>Agt.</i>	Agent.	<i>L. B.</i>	Letter Book.
<i>Amt</i>	Amount.	<i>lbs.</i>	Pounds.
<i>Art</i>	Article.	<i>L. F.</i>	Ledger Folio.
<i>B. or Bk</i>	Bank.	<i>Mdse</i>	Merchandise.
<i>Bal.</i>	Balance.	<i>Mem. or memo</i>	Memorandum.
<i>Bbl</i>	Barrel.	<i>Mols.</i>	Molasses.
<i>B. B.</i>	Bill-book or Bank-book.	<i>Nat</i>	National.
<i>B. Ex</i>	Bill of Exchange.	<i>N. B.</i>	(Nota Bene) Take Notice.
<i>B. P. or Bills Pay.</i>	Bills Payable.	<i>Net</i>	Without deduc- tion.
<i>B. R. or Bills Rec.</i>	Bills Receivable.	<i>O. I. B.</i>	Outward Invoice
<i>Bo't</i>	Bought.	<i>P. or p.</i>	Page. [Book.
<i>Bush</i>	Bushel.	<i>Payt</i>	Payment.
<i>C. or C't</i>	Cent.	<i>Pd.</i>	Paid.
<i>Cash.</i>	Cashier.	<i>Pkg.</i>	Package.
<i>C. B.</i>	Cash Book.	<i>Per. or pr.</i>	By the.
<i>Cer</i>	Certificate.	<i>per ct.</i>	(Per centum) By the hundred.
<i>Chgd</i>	Charged.	<i>P. & L.</i>	Profit and Loss.
<i>Ch.</i>	Check.	<i>Pr.</i>	Pair.
<i>Co</i>	Company. [ery.	<i>Prem.</i>	Premium.
<i>C. O. D.</i>	Collect on Deliv-	<i>prox.</i>	(Proximo) The next month.
<i>Com</i>	Commission.	<i>Ps.</i>	Piece or Pieces.
<i>Con. or Const.</i>	Consignment.	<i>P. C. B.</i>	Petty Cash Book.
<i>Cr.</i>	Creditor.	<i>Recd.</i>	Received.
<i>Cwt.</i>	Hundred weight.	<i>R. F.</i>	Railroad.
<i>D. B.</i>	Day Book.	<i>S. B.</i>	Sales Book.
<i>Dep. B.</i>	Deposit Book.	<i>S. S.</i>	Steamship.
<i>Dft</i>	Draft.	<i>Shipt</i>	Shipment.
<i>Dis.</i>	Discount.	<i>St. Dft.</i>	Sight Draft.
<i>Do. or do.</i>	(Ditto) Ther ^{ne} .	<i>Stg.</i>	Sterling.
<i>Doz.</i>	Dozen.	<i>Sunds.</i>	Sundries.
<i>Dr.</i>	Debtor.	<i>Tr. or Trans.</i>	Transaction.
<i>Ds. or ds.</i>	Days	<i>ult.</i>	(Ultimo) The last month.
<i>ea.</i>	Each.	<i>viz.</i>	(Videlicet) To9 wit; namely.
<i>E. E.</i>	Errors excepted.	<i>vs.</i>	(Versus) Against.
<i>E. & O. E.</i>	Errors and omis- sions excepted.	<i>Yds.</i>	Yards.
<i>Ex. or Exch.</i>	Exchange.	<i>\$.</i>	Dollar.
<i>Exp</i>	Expense.	<i>¢</i>	Cents.
<i>fav</i>	Favor.	<i>£</i>	Pounds Sterling.
<i>F. B. E.</i>	Foreign Bill of Exchange.	<i>d.</i>	Pence.
<i>For'd</i>	Forward.	<i>@</i>	At or to.
<i>Frt</i>	Freight.	<i>%</i>	Per cent.
<i>Ft. or ft.</i>	Foot or Feet.	<i>a/c</i>	Account.
<i>Gal.</i>	Gallon.	<i>"</i>	(Ditto) The same.
<i>Guar</i>	Guarantee.	<i>#</i>	Number.
<i>Hdkf.</i>	Handkerchief.	<i>✓</i>	Check Mark.
<i>Hhd.</i>	Hogshead.	<i>11</i>	One and 1 fourth.
<i>Hund.</i>	Hundred.	<i>12</i>	One and 2 fourths.
<i>I. or Inv.</i>	Invoice.	<i>13</i>	One and 3 fourths.
<i>I. B.</i>	Invoice Book.		
<i>Ins.</i>	Insurance.		
<i>inst</i>	(Instant) The present month.		
<i>Insol.</i>	Insolvency.		
<i>Int</i>	Interest.		

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